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INFLUENCE OF A COLLABORATIVE NORMING PROCESS ON TEACHER
PERCEPTIONS OF MIDDLE LEVEL TEAM STRUCTURE AND DEVELOPMENT

A Dissertation

Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for
the degree of Doctor of Education

By

Brian R. Miller

May 29, 2008

Copyright

By

Brian R. Miller

2008

DUQUESNE UNIVERSITY
SCHOOL OF EDUCATION
INTERDISCIPLINARY DOCTORAL PROGRAM FOR
EDUCATIONAL LEADERS

Dissertation

Submitted in Partial Fulfillment of the Requirements
For the Degree of Doctor of Education (Ed.D.)

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PERCEPTIONS OF MIDDLE LEVEL TEAM STRUCTURE AND DEVELOPMENT

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ABSTRACT

INFLUENCE OF A COLLABORATIVE NORMING PROCESS ON TEACHER PERCEPTIONS OF MIDDLE LEVEL TEAM STRUCTURE AND DEVELOPMENT

By

Brian R. Miller

May 29, 2008

Dissertation Supervised by Dr. James E. Henderson

The teaming concept has served as a cornerstone of middle level philosophy and education since the middle school movement began in the 1960s. The literature on teaming is quite extensive and the interpretations of that research often differ among schools. For the purpose of this study, teaming is defined as a small group of teachers with different content responsibilities who work with the same group of students in a school-within-a-school structure. Described as a signature practice in the middle school movement, teaming provides an organizational framework that allows schools to design and deliver effective learning to every student (Crow & Pounder, 2000; Hackmann, Petzko, Valentine, Clark, Nori, & Lucas, 2002). Despite the widespread use of teaming, most of the empirical research focuses on the structural components of teams. Little empirical attention is given to middle school teams as small groups and the steps

necessary to enhance the interpersonal dynamics and relationships of teachers on those teams in the establishment of shared beliefs.

Given the complex social dynamics of small groups, a Participatory Action Research (PAR) study was designed to better understand the influence of a collaborative norming process on teacher perceptions of exemplary teams. Social constructivist learning theory, small group research, and the learning community concept served as the background necessary for the development of the theoretical framework. A single middle school was selected for this study based upon specific criteria (e.g., grade configuration, teaming at multiple grade levels, team size, team composition, and support of middle level philosophy). In this PAR study, data was collected through semi-structured interviews, observation, and a review of artifacts. The participants actively engaged in professional development sessions and a collaborative norming process that helps to identify the shared goals of the teams. Data were analyzed throughout the study to guide decisions and determine emergent themes. This study illuminated practical issues in enhancing team performance and informed efforts at this school to improve the signature practice of middle level education. By studying the phenomenon of individual teachers working to establish shared beliefs within their teams, educational leaders may gain valuable insight into the transformation of these small groups. The dialogue and reflection inherent in this type of collaborative norming process was as valuable as the product – a site specific framework for exemplary teams.

DEDICATION

To my Family

Heidi, Abby, and Paige Miller

To my Parents

Robert and Margie Miller

ACKNOWLEDGEMENTS

I would like to recognize my wife, Heidi, and children, Abby and Paige, for their support in my ongoing education and professional development. The investment of time, energy, and money into a four year doctoral program was significant. I cannot begin to express my thanks and appreciation for the patience and support that they provided. Our family found a way to help me manage the demands of this program. I am forever thankful to them.

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CHAPTER I

INTRODUCTION

Practical Events Leading to the Problem

The teaming concept has served as a cornerstone of middle level philosophy and education since the middle school movement began in the 1960s. The literature on teaming is quite extensive and the interpretations of that research often differ among schools (Jackson & Davis, 2000; NASSP, 2006; NMSA, 2001; NMSA, 1995). The fundamental nature of teams can be found in the context of small group research (Du, 2007; Levine & Moreland, 1990; Pereles, L., Lockyer, J., & Fidler, H., 2002; Tuckman, 2001; Tuckman & Jensen, 1977). For the purpose of this study, teaming is defined as a small group of teachers with different content responsibilities who work with the same group of students in a school-within-a-school structure. By studying the phenomenon of individual teachers working to establish shared beliefs within their teams, educational leaders may gain valuable insight into the transformation of these small groups. The dialogue and reflection inherent in this type of collaborative norming process proved to be as valuable as the product – a site specific framework for exemplary teams.

In my experience as a middle level principal, I have had the opportunity to review literature on middle level education and the characteristics of effective middle level schools (Jackson & Davis, 2000; NASSP, 2006; NMSA, 2001; NMSA, 1995). In the past few decades, interdisciplinary teaming has emerged as a key structure in exemplary middle level schools (Crow & Pounder, 2000; Hackmann, D., Petzko, V., Valentine, J., Clark, D., Nori, J., & Lucas, S., 2002; Erb, 1997; Jackson & Davis, 2000; NASSP, 2006). Described as a signature practice in the middle school movement, teaming provides an

organizational framework that allows schools to design and deliver effective learning to every student (Crow & Pounder, 2000; Hackmann et al., 2002; NASSP, 2006). Given the broad application of teaming concepts and individual differences in teacher opinion of exemplary team characteristics, it is important for practitioners to engage in practical discussion about the role and functions of high performing teams (Hackmann et al., 2002; Park, S., Henkin, A. B., & Egley, R., 2005; Pounder, 1999). For meaningful educational reform, the purpose of these conversations is to improve team effectiveness as a vehicle for improving student learning and achievement. Teams at middle level are a means, not an end. In reporting results from the NASSP National Middle Level Survey, Hackmann et al. (2002) explain that middle level reform must be driven by student achievement, and teams should exist for their role in contributing to greater student achievement and success. As a middle level principal, a challenge in my school led to a focus on this issue. In the next section, I will describe the historical context of middle level teams and share events that contributed to this research proposal.

Historical Context

As the structure and organization of public education has evolved in the past 200+ years, educational researchers, policy makers, and practitioners have led school reform movements with the ultimate goal of increasing student achievement. To better understand the role and functions that middle school teams serve, it is necessary to describe the emerging focus on adolescent needs and development. After the infancy stage, the ten-to-fourteen year age span of adolescence results in the most significant amount of change in students physical, social, emotional, and intellectual development (Jackson & Davis, 2000; NASSP, 2006; NMSA, 2001). The transition from the local

neighborhood elementary school to the middle or junior high school is a critical point in the sequence of a child's educational development.

In the early 1960's, an educator from Western Pennsylvania, Don Eichorn, founded the nation's first middle school (NMSA, 2001). Instead of continuing the practice of a miniature high school for adolescent students, Eichorn focused on creating a program to meet learner characteristics, developmentally appropriate tasks, and advisory groups for student support. He coined the term *transescents* to describe the significant transformation that occurs in students as they enter the stages of puberty. Some of the original concepts suggested by Eichorn remain as central components of developmentally responsive middle schools. For the past thirty-four years, the National Middle School Association has continued this focused attention on the needs of adolescent learners.

The Carnegie Corporation of New York established the Carnegie Council on Adolescent Development in 1986 to help increase national attention on adolescent learners. In 1987, the council established a Task Force on Education of Young Adolescents with membership comprised of leaders in education, research, government, health, and other sectors of society. In 1989, a seminal report entitled *Turning Points: Preparing American Youth for the 21st Century* was produced. Some of the original recommendations included: large middle level schools should be divided into smaller communities for learning so each student will receive sustained individual attention; middle grades schools should transmit a core of common, substantial knowledge to all students in ways that foster curiosity, problem solving, and critical thinking; and teachers and principals should have the major responsibility and authority to transform schools – not distant administrative or political organizations.

In 1995, the National Middle School Association published a position paper entitled, *This We Believe: Developmentally Responsive Middle Level Schools*. It reinforced the recommendations of *Turning Points* and suggested several core tenets of effective middle schools. As a core belief, the position paper describes the need for flexible organizational structures with interdepartmental teams serving as a central feature of this idea. *Turning Points 2000: Educating Adolescents in the 21st Century* served as the ten year follow-up to the initial work by the Carnegie Council on Adolescent Development. The ability to organize relationships for learning had a central theme in the book. “It is essential that very large middle grades schools be redesigned as smaller institutions...the key principle is to create groupings of students and educators small enough to stimulate the development of close, supportive relationships” (Jackson & Davis, 2000, p. 123). In this particular text, a team is defined as consisting of two or more teachers and a group of students they commonly instruct. Great emphasis is placed on describing the anatomy of an effective team and its characteristics (e.g. team size, student-teacher ratio, composition, and common planning). These concepts are reinforced by the recommendation of the effective schools movement and the recent publication of *Breaking Ranks in the Middle: Strategies for Leading Middle School Reform* (NASSP, 2006).

As researchers continue to study the impact of teams on student achievement, it is important to consider middle school teams as a small group of people who experience similar developmental stages in their work as work teams in other professions (Crow & Pounder, 2000). Most of the research literature follows this pattern: (a) a middle level school has a high level of student achievement on standardized measures, (b) an analysis

of the teams in that school is conducted, and (c) characteristics of those teams are shared as exemplars in the field. These patterns led me to form some basic questions: What happens to average teams? How do we improve the effectiveness of teams in all schools? Does a change in structural characteristics, such as team size, lead to increased student achievement? The answers to these types of questions – situated in the literature on social-constructivist learning, small group development, and middle school teaming – serve as the foundation for my research.

Background Events

Located in a suburban setting, my school has three sixth grade academic teams comprised of three or four teachers and two seventh grade teams with five teachers each. For the 2007/2008 school year, my school anticipated the replacement of six new teachers into the core academic teams (31% change) in our middle school. As the central element of middle level design, our focus on student achievement is primarily addressed through attention to our teams (Hackmann et al., 2002; Jackson & Davis, 2000). In my third year as principal, I was also aware of some of the interpersonal factors – common to most teams – affecting our current team performance (Hackmann et al., 2002; Lencioni, 2005; Shaw, J. B. & Barrett-Power, E., 1998; Tuckman, 2001; Weller, 1995). Based on the Cambridge© model of strategic planning course at Duquesne (Cook, 2001), prior exposure to the stages of small group development (Tuckman, 2001), and a parable about the *Five Dysfunctions of a Team* (Lencioni, 2002), I designed a process for our teachers to identify their core beliefs and the core functions of our interdepartmental teams. I then served to facilitate the process of identifying the core beliefs of our team teachers about teaming. The process that I developed and utilized in my school and the consequences of

that activity served as the impetus for my research agenda. A variation of the initial process will be fully described in the methodology section of this report.

The overview of middle level teaming will be based upon the published works of the National Middle School Association and empirical studies designed to evaluate those practices (Crow & Pounder, 2000; Erb, 2000; Felnar et al., 1997; Jackson & Davis, 2000; NMSA, 2006; NMSA, 1995). In studying the teaming component of middle schools and considering the practical challenges in my school, I began researching the characteristics of small group development proposed by Tuckman (2001; Tuckman & Jensen, 1977). Although I will explore small group research in later sections of this paper, several key terms can be defined through the bolded words in Table 1.1. Middle level teams qualify as natural groups (i.e., exist to perform a professional service) and meet the task activity and group structure realms (Tuckman, 2001). This table provides a conceptual framework for the problem statement, underlying theory, and upcoming review of literature.

Table 1.1: Developmental Sequence in Small Groups (Tuckman, 2001).

	Group Structure The pattern of interpersonal relationships and interactions of members toward each other.	Task Activity The content of interaction as related to the task at hand.
Forming: Orientation, testing, and dependence	Testing and dependence	Orientation to the task
Storming: Resistance to group influence and task requirements	Intra-group conflict	Emotional response to task demands
Norming: Openness to other group members	In-group feeling and cohesiveness develop; new standards evolve and new roles are adopted	Open exchange of relevant interpretations; intimate, personal opinions are expressed
Performing: Constructive action	Roles become flexible and functional; structural issues have been resolved; structure can support task performance	Interpersonal structure becomes the tool of task activities; group energy is channeled into the task; solutions can emerge
Adjourning: Disengagement	Anxiety about separation and termination;	Self-evaluation

Statement of the Problem

Student achievement in a variety of measures represents the technical core of education (Hoy & Miskel, 2005). When the No Child Left Behind Act of 2001 was authorized, the expectations for student performance, teacher quality, and school accountability were clearly defined. While it was not a component of this review, a historical review of educational reform efforts would indicate that the American education system is still struggling to find the answers and methods for improving our nation's schools. It is also clear that each state and more specifically, the local school districts still retain the responsibility and authority to address these mandates. At the

middle level, the teaming model is the most common organizational structure to address student achievement (Jackson & Davis, 2000).

As a general problem statement, differences among educators in defining effective middle level teams and a lack of understanding about small group development and dynamics reduce the overall effectiveness of those groups. Insufficient attention has been given to the steps necessary to improve middle level teams. In addition to these problems, realities such as retirement, enrollment fluctuation, or job re-assignment result in changes in team personnel. Because teaming usually occurs at multiple grade levels, inconsistencies may also be found in the core beliefs and actions of different teams within the same school building. Existing research on middle level teams has primarily focused on the characteristics of effective teams (e.g. team size, composition, and scheduling) from schools that have been identified by student achievement results.

A need exists in middle level teaming research to better understand the group structure and task activity components of teams as small groups and begin to illuminate a process for enhancing the effectiveness of existing teams. Given the broad application of teaming concepts and individual differences in teacher opinion of exemplary team characteristics, it is important for us to engage in practical discussion about the function and responsibilities of high performing teams (Conley et al, 2004; Crow & Pounder, 2000; Park, S., Henkin, A. B., & Egley, R., 2005; Pounder, 1999).

According to a descriptive and correlational study conducted by Conley et al. (2004), interpersonal processes (i.e. coordinating efforts, weighing/balancing inputs) emerged as a significant predictor of group effectiveness. Failure to balance inputs within the group is problematic for all work outcomes. "It is critical that these educational teams

learn, gain experience, and become competent as performing groups...perceptions of work effectiveness were influenced by the degree of specialized skill and knowledge members bring to bear on tasks and on performance strategy” (Conley et al., 2004, p. 691). The main findings of this study were that two fundamental variables, knowledge/skills applied and appropriateness of strategies are the core mediators in the model (Conley et al., 2004). Findings also suggest that healthy interpersonal processes have more direct and indirect effects on teaching/learning processes than do organizational context or design features. Teachers who perceive that their team is highly participatory and that team members are comfortable sharing ideas report favorable teaming outcomes. According to the authors, studies of team effectiveness in smaller urban and/or suburban settings should be conducted. The results of this study and related studies of teams as work groups helped to inform my study’s purpose (Conley et al., 2004; Crow & Pounder, 2000; Hackmann et al, 2002; Pounder, 1999).

Purpose of the Study

The purpose of this study is to determine the influence of a collaborative norming process on teacher perceptions of middle level team structure and development. In taking people from an individual to a shared group perspective, a heightened awareness of group structure, dynamics, and common dysfunctions may serve to enhance understanding and effectiveness (Pounder, 1999). For a variety of reasons (e.g. retirement, maternity leave, and enrollment shifts), teachers join teams and are placed in a new environment (e.g. curriculum, students, expectations, schedule, and leadership) that require this type of performance challenge. A thick, rich description of these issues may inform the efforts of

middle level educators to enhance the performance of middle level teams through the establishment of shared expectations. Park et al. (2005) argue that:

teams populated by interconnected, trusting and committed teachers involved in cooperative decision making can enable changes that enhance the connection of professionals and student outcomes and, concurrently, provide the social support and intrinsic organizational rewards that encourage a more collectivistic culture and reinforce the desire to engage, and continue membership in the organization. (p. 463)

By understanding the tension that develops within the individual teacher and in the group structure, future reform – or transformation – efforts to improve team performance may be achieved (Conley et al., 2004; DuFour & Eaker, 1998; Weller, 1995).

Justification for the Study

Improvement efforts for middle school teams have historically rested on the implementation of structural characteristics of effective teams with insufficient attention given to the group structure realm of team development (Hackmann et al., 2002; Tuckman, 2001). Within the social constructivist framework, knowledge and development are a function of the setting and the task requirements of the job. With groups, the task and interpersonal realms are not mutually exclusive. As foreshadowed in this introduction, the literature review will illuminate the need for more empirical research in the field of education (Hackmann et al., 2002; Levine & Moreland, 1990; Park et al., 2005; Price et al., 2007; Tuckman, 2001). In middle level education, interdepartmental teams strongly identify with the realms of task activity and group structure.

The gap in small group research in education and the challenges with analyzing small group research in general have been clearly established (Levine & Moreland, 1990). Because small groups are studied across so many disciplines, the scholarly discussion can be diminished through diffusion and isolation (Crow & Pounder, 2000). As interdepartmental teams, teachers form small groups who construct knowledge individually and collectively and have a natural responsibility (group and task realms) to support student learning and achievement. While we must continue to study the characteristics of effective teams, we must give additional attention to our methods for improving the group structure and task activity potential within existing teams.

The focus on teams and groups was partly caused by research that linked effective teams with improved productivity in the workplace and a growing body of research that links faculty collegiality and collaboration, school climate, and culture with student achievement (Pounder, 1999; Wheelan & Kesselring, 2005). These authors suggest further investigation of the relationship between faculty-group effectiveness and student achievement. Levine and Moreland (1990) describe a need for small group research in the field of education and more specifically, research on social environments that involve small groups that are embedded within large organizations. In these cases, small groups may be significantly influenced by people who are not actually group members. Additional issues for small group research are presented, such as the effect of the beliefs and expectations that current members share about their group, the arrival of new group members or departure of old ones, and changes in the group's physical or social setting (Levine & Moreland, 1990).

Research Questions

This study was designed to answer the following questions:

1. What themes emerge when an interdepartmental team is led through an exercise designed to identify individual beliefs as a teacher and shared beliefs as a team?
2. How does that collaborative norming process influence previously held teacher perceptions of team performance and behavior?
3. What tensions emerge in the group process and how do those tensions influence decisions to engage in debate around key ideas?
4. How does explicit instruction and awareness of the forming, storming, and norming stages of small group development inform those perceptions and practices?
5. What unintended consequences (e.g. teacher-to-teacher, teacher-to-student, and/or principal-to-teacher) or other themes emerged for teachers as a result of this activity/process?

Objectives

The primary objectives of the study are:

1. Utilize extant literature on the stages of small group development, social constructivist learning theory, and middle level teaming to design a framework for evaluating team performance;
2. Determine initial understandings of the purpose, function, and performance of teams as a baseline for monitoring any changes in those perceptions;

3. Empower interdepartmental middle level teachers to identify team outcomes through a collaborative norming process;
4. Identify and discuss the tensions – both individual and within the group structure – that emerge when professionals are being placed in a situation where they need to change their habits and behaviors, and
5. Familiarize teachers with the stages of small group development and realms of the developmental sequence to inform teacher perceptions of exemplary teams and their understanding of the realms of group development.

Theoretical Framework

Given the introduction to this paper, I focused on three primary sets of literature: social constructivist learning theory, research on small groups, and middle level teaming. The development of interdepartmental teams – as small groups – involves the acquisition and sharing of knowledge by individual teachers and groups within the context of middle level education. As an initial theory, social constructivism represents a perspective which “focuses on the interdependence of social and individual processes in the co-construction of knowledge” (Palinesar, 1998, p. 345). From the social constructivist perspectives of Lave and Wenger, “expertise is characterized not in terms of knowledge structures but rather in terms of facility with discourse, norms, and practices associated with particular communities of practice” (as cited in Palinesar, 1998, p. 365).

In his book on communities of practice, Wenger (1998) defines Communities of Practice (CoP) as:

- a group of people who (a) have a sustainable history of mutual engagement; (b) negotiate with one another about what they are doing,

how they should behave, their relation with a larger institution, and the meanings and artifacts they use; (c) have developed local routines and artifacts to support their work together; (d) know who to ask when they need help and (e) introduce into their community new trainees who want to become proficient at their practice. (p.123)

Adopting activity theory as a framework, Hung et al. (2006) discuss how transformations take place through a two-way process (learning from one another as a two-way interaction process) at both the social-collective and individual-learner levels of interaction and cognition. The purpose of their study was to illustrate the need to emerge and evolve a transformation rather than make the assumption that constructivist thinking will occur because a technology is adopted. This concept relates to my earlier claim that, direct (intentional) exposure to the stages of small group development and realms of the developmental sequence will effect teacher perceptions of exemplary teams and their understanding of the realms of group development.

Hale (as cited in Du, 2007) describes four defining attributes of a work group: interactions among group members, a set of common goals, shared norms, and a network of interpersonal attraction. Additional references are made to the different task realms in small groups and that fact that group entity, identity, and reasonable group size are important characteristics (Du, 2007; Tuckman, 2001). In a similar fashion, Shaw and Barrett-Power (1996) suggest that groups which effectively manage the processes of forming, storming, and norming are able to achieve a higher level of behavioral integration or “the degree to which the group engages in mutual and collective interaction” (p. 1318).

The problems can be clarified with the following questions: How do we establish a shared understanding of the purpose and function of teams? How do we improve our teams without a clear vision or purpose? How do we or should we develop norms for multiple teams within the same school setting? How do individual teachers and teams of teachers engage in learning and professional development within the context of middle level education? In an effort to situate these questions within the larger discourse, possible connections to social constructivist theory, social learning theory, and situated learning theory were reviewed (Palinesar, 1998; Price, M., O'Donovan, B., & Rust, C., 2007). In the *Annual Review of Psychology*, Palinesar (1998) describes the work of Piaget and Vygotsky in his analysis of the social constructivist perspective on the interdependence of social and individual processes in the co-construction of knowledge. A process model for establishing team norms was eventually proposed with the premise that teachers should be involved in the process that would be later used to guide their work (Price et al., 2007).

Described as a signature practice in the middle school movement, teaming provides an organizational framework that allows schools to design and deliver effective learning to every student (Hackmann et al., 2002). The fundamental nature of teams as communities of practice can be found in the context of small group research (Du, 2007; Levine & Moreland, 1990; Pereles, L., Lockyer, J., & Fidler, H., 2002; Tuckman, 2001; Tuckman & Jensen, 1977). Social constructivism represents a perspective which “focuses on the interdependence of social and individual processes in the co-construction of knowledge” (Palinesar, 1998, p. 345). The complexity of human relations and social cultural learning theory are evident in this middle school structure. As a researcher, it was

necessary for me to acknowledge the inability to isolate one specific variable from the more complex group structure.

As I considered my original philosophical, ontological, and epistemological perspectives, I realized that a deeper understanding of these dynamics might illuminate and inform the interdepartmental teaming issue in a more meaningful and authentic manner. In a review of Shank (2005), Glesne (2006), and Delamont (2002), I began to connect with many aspects of the qualitative approach and methodology. As an operational definition(s), I began to connect with the following ideas: (a) variables are complex, interwoven, and difficult to measure (or anticipate); (b) reality and learning are socially constructed and can best be defined as the co-construction of knowledge from an individual and social context; (c) my personal involvement in the setting and background knowledge in the field inspires my passion for increasing my understanding of the phenomenon; and (d) a thick description of this phenomenon could help a portion of the educational community increase their knowledge and awareness at one site. As a researcher, I want to “understand and interpret how the various participants in a social setting construct the world around them” (Glesne, 2006, p. 4).

Anticipated Limitations of the Study

The selection of a site was extremely important for this Participatory Action Research (PAR) case study. In reviewing potential sites, I balanced my decision to study a typical middle school with the need to find a site that shows promise in generating meaningful data. Similar to other PAR studies, the quality of rapport and trust developed with the participants had significant implications for the depth and breadth of data that was collected (Tshannen-Moran, 2001). While generalizability or replication was not a

primary goal of the study, I am hopeful that a rich, thick description of this research proves beneficial to practitioners in the field. After completing the data collection, I utilized the following verification procedures: clarification of researcher bias, persistent observation, member checking, and rich, thick description. The discussion was based on participant responses within the context of small group structure and development through the collaborative norming process.

In my experience as a middle level principal, it is my belief that middle level teams can increase their effectiveness by establishing a shared vision and by recognizing the stages and dynamics of small groups. My feelings are partly based on the impact of a similar process in my school. Given my position and the inherent power structure of schools as bureaucratic systems, I felt it would be inappropriate to consider backyard research for the purpose of a dissertation. Biased in my hope that a collaborative norming process will result in increased ownership and awareness of team goals, I also recognize that unintended consequences can also occur when developing this type of product.

Definition of Terms

Given the broad variation in defining middle school teams, it is necessary to create an operational definition for proper context and meaningful discussion (Hackmann et. al., 2002; Jackson & Davis, 2000; NMSA, 2006):

Teaming – a small group of teachers (3 – 5) with different content responsibilities who work with the same group of students in a school-within-a-school structure.

Forming – the first stage in small group development characterized by orientation, testing, and dependence (see Table 1.1).

Storming – the second stage in small group development characterized by resistance to group influence and task requirements (see Table 1.1).

Norming – the third stage in small group development characterized by openness to other group members (see Table 1.1).

Norms - common beliefs and values shared by the individuals that govern the interactions, functions, etc. of a group of people.

Collaborative Norming Process – a defined method or procedure that helps team members identify shared beliefs while acknowledging individual differences (see nominal grouping technique).

Group Structure - one of two realms of small groups that describe the pattern of interpersonal relationships and interactions of members toward each other (see Table 1.1).

Task Activity – one of two realms of small groups that describe the content of interaction of members related to the group purpose (see Table 1.1).

Developmental Sequence for Small Groups – refers to the forming, storming, norming, performing, and adjourning stages in both the group structure and task activity domains (see Table 1.1).

Nominal Grouping Technique – a group facilitation process utilized to gather ideas and gain consensus from a group of people while withholding their ability to speak.

Storyboarding Technique – a method for group process facilitation that uses cards and categories to drive a consensus approach for topics and priorities.

CHAPTER II

LITERATURE REVIEW

Introduction

In *The Five Dysfunctions of a Team*, Lencioni (2005) shares a story that underlies the primary argument for this study. Before moving into a review of empirical literature, I will share excerpts from that leadership fable – a time honored technique for teaching through stories. As I create a theoretical framework for enhancing middle level teams and a review of empirical literature, consider Lencioni's (2005) fable as a conceptual model of team dysfunctions and the socio-cultural challenges of team performance and small group development.

A Teaming Fable

The board of DecisionTech was faced with the need to remove their CEO due to poor company performance (Lencioni, 2005). In a surprise announcement, Kathryn Peterson – a proven leader with little knowledge in the technology field – was hired to transform the organization. Her significant challenge rested in uniting a leadership team that had become increasingly dysfunctional in its approach. Backstabbing, inter-departmental competition, and poor communication patterns were evident in her initial observations of the leadership group. As a framework for understanding and improving leadership team performance, she combined professional development with company performance goals to help address the problem of ineffective teamwork. The visual model for these dysfunctions can be found in Table 2.1. These concepts will be explored from an empirical perspective in the next section.

Table 2.1: The Five Dysfunctions of a Team (Lencioni, 2005)

Level	Team Dysfunction	Team Consequence
Level 5	Inattention to Results	Status and Ego
Level 4	Avoidance of Accountability	Low Standards
Level 3	Lack of Commitment	Ambiguity
Level 2	Fear of Conflict	Artificial Harmony
Level 1	Absence of Trust	Invulnerability

As Kathryn worked to reshape leadership behaviors among the executive team, she identified the areas of concern within the group structure before planning task activities that helped team members learn together in a community of practice. In her model, Kathryn explained that trust – or the willingness to be honest and vulnerable within the group – is vital for team formation. A consequence of distrust and a fear of open dialogue and debate within the team led to the concept of *artificial harmony* – that unmistakable feeling that while everyone is saying things are fine...there is a figurative elephant in the living room. Without clear goals, a lack of commitment and avoidance of self and team accountability can occur. As Kathryn leads her new company in the direction of increased teamwork and performance outcomes, multiple tensions begin to emerge. These tensions occur within and between people as they consider their own perspectives, beliefs, and behaviors within the organizational context (Lencioni, 2005).

Theoretical Framework

As a qualitative researcher, I have utilized the literature review to craft the argument that a valuable component of middle school reform and transformation lies with the ability to improve the group structure and task activity realms of interdepartmental teams. A discussion of small group research, social-constructivism, professional learning communities, and middle level team research provides the theoretical underpinnings for this study of the teaming concept.

In the first sections, I will explore small group research and social-constructivist learning theory as a critical foundation for group development. Then, I will connect empirical studies in the areas of professional learning communities and middle level teaming within the context of effective schools research. Finally, I will clearly identify the problem and purpose for this study and the specific research questions that will be addressed through the research design and methodology. Given the natural connection between these sets of literature, the themes of each topic will pervade the entire review.

Research on Small Groups

In the *Annual Review of Psychology*, Levine and Moreland (1990) reviewed progress in small group research with specific focus on the following group domains: ecology, composition, structure, conflicts, and performance. They describe their perspective on an issue in this area when they state that “people who study small groups tend to publish in (and read) different journals, depending on their disciplines. Much of the vitality of the field is thus invisible to those within it, not to mention those outside it” (p. 586). Levine and Moreland (1990) describe a need for small group research in the field of education and more specifically, research on social environments that involve

small groups that are embedded within large organizations. In these cases, small groups may be significantly influenced by people who are not actually group members.

Additional issues for small group research are presented, such as the effect of the beliefs and expectations that current members share about their group, the arrival of new group members or departure of old ones, and changes in the group's physical or social setting (Levine & Moreland, 1990). A broad understanding of small group structure and interaction will help situate the literature on teaming.

Consistent themes began to emerge in the review of small group literature. In the first Chapter of this study, I established Tuckman's terminology and framework as a general structure for understanding the discussion of small group studies (2001).

Additional operational definitions will help guide the reading. Group is defined as a small collection of individuals (ten or less) who have the opportunity for significant, meaningful interaction with one another (Shaw et al., 1998). Commonly identified characteristics of successful groups include: open communication, flexibility, commitment to group goals, mutual supportiveness, effective conflict management, discussion of strategy, and the evaluation of individual inputs into group decisions (Levine & Moreland, 1990; Park et al., 2005; Shaw et al., 1998). Hale (as cited in Du, 2007) describes four defining attributes of a work group: interactions among group members, a set of common goals, shared norms, and a network of interpersonal attraction. Additional references are made to the different task realms in small groups and the fact that group entity, identity, and reasonable group size are important characteristics (Du, 2007; Tuckman, 2001).

In studying the teaming component of middle schools and considering the practical challenges in my school, I began researching the characteristics of small group development proposed by Tuckman (Tuckman, 2001; Tuckman & Jensen, 1977). The critical questions in this study relate to interdepartmental teams as small groups and the effect of a norming process on those groups (and individuals) within the task and group realms (Tuckman, 2001). In his multi-year review of studies, mostly within the psychology domain, Tuckman (2001) identified typical stages in the developmental sequence of small groups. These stages were later referred to as forming, storming, norming, performing, and adjourning (see Table 1.1). This final stage was added later in the research process – when new empirical evidence became available – to describe the feeling that emerged when groups dissolved. Middle level teams qualify as natural groups (i.e., exist to perform a professional service) and meet both the task activity and group structure realms (Tuckman, 2001). Careful study of this table provides a conceptual framework for the problem statement, underlying theory, and review of literature.

As a general definition in the literature, a team may be viewed as a group of individuals who work interdependently to solve problems or accomplish tasks. Members must coordinate their decisions and activities by sharing information and resources to attain shared goals (Park et al., 2005). Similar to group characteristics, team skills include: communication, team orientation, team leadership, monitoring, feedback, supportive behavior, and coordination (Levine & Moreland, 1990; Tuckman, 2001). As indicated in the definitions section, teaming is defined as a small group of teachers with different content responsibilities who work with the same group of students in a school-

within-a-school structure. As evidence to support my use of Tuckman's terminology, Wheelan and Kesselring (2005) outlined four levels or stages in their study:

(a) dependency and inclusion; (b) counter-dependency and fight; (c) trust and structure; and (d) work stage characterized by intense group productivity and effectiveness. Not all groups reach all stages, but mature groups have more influence – positive and negative – over member behaviors and attitudes than do other groups. Acknowledging the different descriptions of these stages is important for contextual understanding. Tuckman's stages will serve as an effectively broad framework for analyzing and synthesizing the literature. The primary difference in other group descriptions is the exclusion of an adjourning stage. A probable weakness in the Tuckman model is the relative inattention to the role of group leader in the stages of development (Du, 2007; Hare & Hare, 2001; Park et al., 2005).

Shaw and Barrett-Power (1996) also use Tuckman's terminology to summarize components of their diversity model because of the widely recognized use of his terms. It applies to teams based on the fact that individual team members could be diverse in a variety of characteristics (e.g., gender, age, experience, and educational background). In their model, Shaw and Barrett-Power (1996) propose seven hypotheses that surround diversity in small groups. For example, "diversity among members in terms of readily detectable attributes will be strongly and negatively correlated with aspects of the group-forming process. The greater the level of diversity, the less cohesion, social interaction, and attraction experienced by the group" (p. 1315). In other words, some diversity is beneficial to a group, but when the differences are too great, it has a negative effect on group performance. The authors support the general belief that all groups do not move

through the stages in a sequential manner and that a group may cycle through the various stages at different points in their functional life. Shaw and Barrett-Power (1996) suggest that groups which effectively manage the processes of forming, storming, and norming are able to achieve a higher level of behavioral integration or “the degree to which the group engages in mutual and collective interaction” (p. 1318).

In their study, the groups operated in an organizational system in which the rules, roles, task definitions, information, and resources needed for the group to perform effectively are not readily and rigidly dictated by the organization, the circumstances, or the group leader. Their model is based on situations where groups have some discretion or flexibility in their work processes. Shaw and Barrett-Power (1996) suggest that diversity, through its impact on stage development will determine the overall level of behavioral integration in group activities. Behavioral integration then “influences the ability of the group to develop systems of problem solving, decision making, and implementation” (p. 1323). The authors also believe that their model adds significantly to the overall picture of how group composition affects group performance and attitudes.

Hare, as cited in Du (2007) identified four work group functions meeting the L-A-I-G acronym: (a) Latent pattern maintenance – group members must forge a common identity and be committed to the values of the group; (b) Adaptation – group members must possess the skills and resources to achieve group goals; (c) Integration – groups must have rules to coordinate activity and a feeling of solidarity to stay together to accomplish tasks; and (d) Goal attainment – groups must have control over members to coordinate the use of resources and members to achieve group goals (p. 187). Leadership was seen as a critical concept in meeting group needs, achieving group goals, setting norms,

enhancing group productivity and effectiveness, and promoting satisfaction and relationships of group members (Du, 2007). Citing various works, Du (2007) defines group leadership as an influence process directed towards goal achievement with functions such as helping the group achieve a specific goal and helping to maintain/build the group itself.

Du (2007) utilized a case study approach to study the leadership concept in an elementary school. Similar to interdepartmental teams, work groups are “bounded social entities responsive to and interconnected with the larger organizational environments” (p. 189). The study occurred in a high performing suburban elementary school and included 12 teachers (all female; 11 White/1 Black) with a mean of 18 years of teaching experience. Triangulation occurred with data from face-to-face semi-structured, audio-taped interviews with the 12 teacher-leader participants; observations of three group meetings; and school documents/artifacts. Inductive research and constant comparative analysis were used to analyze the data – leading to themes, categories, and sub-categories.

In his findings, Du (2007) discovered that four broad factors of leadership behaviors: Leadership Attainment (i.e. emergent leadership), Group Size and Stability (i.e. smaller sizes preferred with a optimal size of five and stabile membership), Characteristics of Group Leaders and Members (i.e., experienced teacher-leaders were more effective in task attainment), and School Environment (i.e., time was an issue but the groups felt that a larger environment of respect and empowerment existed in the school due to shared governance structures). Within these broad categories, Du (2007) identified approximately 40 descriptors for leader behavior, such as *norm-setter* and

environment-builder based on leadership actions. Du (2007) believes that L-A-I-G could be used as a theoretical framework for the study and practice of work groups in schools. The findings suggested that group composition variables directly affect leadership performances in school work groups (e.g. size of group and leader characteristics). A limitation of the study is the limited generalizability of a single case. He believed that “future studies could examine how group leaders choose and prioritize leadership behaviors and how to measure group effectiveness in general and effectiveness of leadership behaviors in particular” (Du, 2007, p. 203).

Hare and Hare (2001) studied the concept of role repertoire as a means of advancing small-group research. Role repertoire analysis implies a systemic approach to understanding group process and implementing change. Their simulation for composing a five-member task group illustrates a method for matching the role repertoires of potential members with the role requirements of an effective group. The 26-item SYMLOG Individual and Organizational Values inventory was used to represent a comprehensive set of roles. Reliability and validity were well established with a reference to the complete published statistical description. The target group size was established at five members because of prior studies of performance and member satisfaction (Hare & Hare, 2001). A three-dimensional model of social interaction was created with the following pairs: Upward (dominance) vs. Downward (submissiveness), Positive (friendly) vs. Negative (unfriendly), and Forward (accepting tasks from authority) vs. Backward (opposed to tasks from authority). A typology was created for candidates in a membership group (Hare & Hare, 2001).

Analysis of one-member task forces indicated that the most effective individual was a UPF type with a balance between dominance, friendly behavior, and acceptance of task-oriented authority. The most effective five-member group had the following composition: two UPF members (democratic task leaders), one UP member (social organizer), one PF member (team player), and one F member (conservative worker). The findings also indicated that whether an individual acts in one role or another is determined by a host of situational variables, among which are the repertoires of other group members (Hare & Hare, 2001). Limitations of the study include the mathematical manipulation of data profiles, the purpose (general problem solving) versus other group tasks which might need a different composition of role repertoires, and when/how the different roles would be used by a person in a group activity (Hare & Hare, 2001). This study relates to the group structure realm of Tuckman's (2001) model (see Table 2.2).

Wheelan and Kesselring (2005) investigated the relationship between the perceived effectiveness of elementary school faculty groups as a whole and student performance on standardized tests. The Group Developmental Questionnaire was used with principals and teachers from 61 elementary schools (all participated) with results suggesting that school demographics (staff size, rural or urban location, and district poverty level) significantly influenced student outcomes. The focus on teams and groups was partly caused by research that linked effective teams with improved productivity in the workplace and a growing body of research that links faculty collegiality and collaboration, school climate, and culture with student achievement (Wheelan & Kesselring, 2005). The authors suggest further investigation on the relationship between faculty-group effectiveness and student achievement.

Wheelan and Kesselring (2005) argue that higher staged groups also behave in accordance with group goals, norms, and policies because those members support their adoption. In this study, the relationship between teacher perceptions of faculty-group effectiveness and development and actual levels of faculty productivity in 61 Ohio schools representing rural/urban and average/low income was assessed. Of the possible 2,280 members, 2,245 (98.5%) participated in the study by completing the sixty item Group Development Questionnaire (Wheelan & Kesselring, 2005). The four levels of group stage development were assessed with fifteen questions each. Validity and reliability were confirmed and the Ohio Fourth Grade Proficiency Tests were used to measure student performance based upon their use in all schools.

Findings suggest that although staff size, rural or urban location, and district poverty level do influence student outcomes, the manner in which faculty members work together as a group is also influential (and controllable), particularly in high poverty schools (Wheelan & Kesselring, 2005). The results suggest that if faculty members work to become more trusting, cooperative, and work oriented as a group, student learning and performance will improve.

Successful intervention focuses on the group as a system, the way that system is functioning, and what members can do to improve the group's effectiveness and productivity...information about group development, characteristics of effective teams, and the importance of taking a systemic, as opposed to an individual or interpersonal, view of group problems is an important step in the intervention process. (Wheelan & Kesselring, 2005, p. 329)

As I will continue to explore, a connection exists between small group research, social-constructivist learning theory, and middle level teams.

As a transition example of the social-constructivist influence on teams, Pereles et al. (2002) study the concept of communities of practice through an empirical study dealing within permanent small groups of physicians. They used participatory action research (PAR) to conduct semi-structured interviews with a constant comparative method to gather data and make conclusions. Coded themes, categories, and subcategories were developed and tested to ensure the interpretation of data and events. Feedback was collected from the participants to ensure accurate translation of notes. In this study, physicians were sharing experiences and knowledge to determine new approaches (to their practice) that would increase their effectiveness and comfort as general practitioners. Findings suggest that participation was seen as a major issue with two components: regular attendance and participation in discussions (Pereles et al., 2002). Physicians reported that they listened, reflected, shared opinions and clinical experiences, and received feedback in their groups; but change in their individual techniques was slow to occur. This fact was attributed to the significance of adjusting a treatment protocol for a particular illness.

Overall, Pereles et al (2002) believe that many of the groups approached but did not realize their potential as true communities of practice. Wenger, as cited in Pereles noted that:

communities of practice will be most successful when the group takes charge of learning. This requires the group to participate in activities requiring mutual engagement, including the challenges and responsibilities

that call on the knowledge of the group members yet encourage them to explore new territories. (2002, p. 211)

The authors believe that additional research questions such as, “What would be required to transform permanent small groups into true communities of practice in which the members engage more fully with one another in more intensive learning experiences?” would be enlightening. Given the valued role of the facilitator in the group, Du (2007) describes a lack of empirical studies that have examined how teachers emerge as leaders in school work groups.

Social Constructivist Theories of Learning

The development of interdepartmental teams – as small groups – involves the acquisition and sharing of knowledge by individual teachers and groups within the context of middle level education. As a broad definition, learning happens when experience produces a stable change in someone’s knowledge or behavior. Three general theories of learning include behavioral, cognitive, and constructivist (Hoy & Miskel, 2005). In the constructivist realm, theorists are interested in how individuals make meaning of events and activities with learning seen as the construction of knowledge. From the socio-cultural and social constructivist perspective, learning is the co-construction of knowledge from the individual and group/social perspective (Hoy & Miskel, 2005; Palinesar, 1998). Sociocultural approaches to learning and development are based on the concept that human activities take place in cultural contexts, are mediated by language and other symbol systems, and can be best understood when investigated in their historical development (John-Steiner & Mahn, 1996).

As an initial theory, social constructivism represents a perspective which “focuses on the interdependence of social and individual processes in the co-construction of knowledge” (Palinesar, 1998, p. 345). Grounded in the work of Lev Vygotsky and his view of socio-cultural theory, learning and development take place in socially- and culturally-based contexts (Palinesar, 1998; Street, 2004). His dialectical approach had three central tenets: (a) that phenomena should be examined as part of a developmental process; (b) that change does not occur in a linear, evolutionary process; and (c) that these transformations take place through the unification of contradictory, distinct processes (Mahn, 1999). Vygotsky’s Zone of Proximal Development (ZPD) differentiates between two levels of development: the actual level of development achieved by independent problem solving and the potential level of development reached with the guidance or collaboration of an adult or a more capable peer. The actual level of development is measured by what students are capable of achieving on their own – highlighting the central tenet in sociocultural theory – the interdependence of individual and social processes in the co-construction of knowledge (Mahn, 1999). As a specific example, Vygotsky’s premise of the ZPD can be applied to the role of the individual teacher on an interdepartmental team (Palinesar, 1998). Each individual teacher – through their knowledge, experience, and development – has an independent performance level. When connected with other knowledgeable professionals in a team setting, the collective competency of the group helps assist the individual in gaining new knowledge and learning how to apply that knowledge in other settings.

Given differing perspectives within the social constructivist literature, Lave and Wenger provide additional insight into the construction of knowledge. From the social

constructivist perspectives of Lave and Wenger, “expertise is characterized not in terms of knowledge structures but rather in terms of facility with discourse, norms, and practices associated with particular communities of practice” (as cited in Palinesar, 1998, p. 365). In his book, Wenger (1998) defines Communities of Practice (CoP) as:

a group of people who (a) have a sustainable history of mutual engagement; (b) negotiate with one another about what they are doing, how they should behave, their relation with a larger institution, and the meanings and artifacts they use; (c) have developed local routines and artifacts to support their work together; (d) know whom to ask when they need help and (e) introduce into their community new trainees who want to become proficient at their practice (p. 123).

As described by Cobb and Yackel (1996), one of the most significant developments in American educational research in the past decade has been the increasingly prominent role played by both constructivist and sociocultural approaches. Interdepartmental teams in the middle school setting meet this definition because they are formed for task performance, student support, and shared learning – not just to solve a problem. The idea of gradually moving from peripheral to full participation, defined as legitimate peripheral participation, is important as I study the reality of group composition changes in education (Aretmeva, 2006; Street, 2004). For a variety of reasons (e.g. retirement, maternity leave, and enrollment shifts), teachers join teams and are placed in a new environment (e.g., curriculum, students, expectations, schedule, and leadership) that require this type of participation pattern.

The Effective Mentoring in English Education (EMEE) project identified fifteen experienced teachers and their student-teachers for a qualitative study using naturalistic inquiry (Street, 2004). According to Street (2004), the use of qualitative methods was based on the need for in-depth descriptions of specific people, places, and relationships. With these methods, he felt that a rich picture would emerge with comprehensive descriptions from the participants about the significant events of their mentoring experiences. Throughout the semester, the project created opportunities for student-mentor pairs to reflect on how they were learning together and assisting in each others' learning. Data triangulation was made through interviews, observations, and artifacts. As the mentoring relationships evolved, Street (2004) noticed that mentors and student teachers began to engage each other in challenging – but positive and meaningful – conversation. Although it did not occur in all pairs, it was a common characteristic among the most successful relationships. This description of developmental stages in the pair is similar to small group development introduced earlier (see Table 1.1). Lave and Wenger (as cited in Street, 2004) suggest that the more expert members of learning encounters are also influenced by the experience. For the pairs who develop into truly professional partnerships, learning was “distributed among co-participants” (p. 20). As implications for teacher educators, Street (2004) believes that his study results highlight the importance of the affective relationship – or group structure – that develops.

Price et al. (2007) describe a student assessment process that mirrors the intention of the norming process intended in this study. In a similar comparison, the peer-review assessment process in this study is a form of the design-based research used in the Research Question Seminar at Duquesne University. The group utilized tools and text to

develop meaning with the context of the learning activity. Built on the argument that assessment has a critical and significant influence on student learning behavior, Price et al. (2007) use a social-constructivist perspective which argues that knowledge is shaped and evolves through increasing participation within different communities of practice and that for students to truly understand the requirements of the assessment process, they need tacit as well as explicit knowledge.

The social-constructivist process model argues that students should be actively engaged with every stage of the assessment process in order that they truly understand the requirements of the process, and the criteria and standards being applied, and should subsequently produce better work.

(Price et al., 2007, p. 145)

The results of the study did not support an improvement in work quality after attending the peer evaluation and feedback training session. While the participants gave positive survey feedback to all aspects of the process – including the fact that they applied comments and suggestions – the quality of their work did not differ significantly from students who did not participate in the session (Price et al., 2007). The authors were disappointed with their results and despite offering several theories for the findings, felt that the study was unsuccessful. The authors included an explicit request for feedback about their study results from professionals working with the same topics (Price et al., 2007).

Adopting activity theory as a framework, Hung et al. (2006) discuss how transformations take place through a two-way process (learning from one another as a two-way interaction process) at both the social-collective and individual-learner levels of

interaction and cognition. The purpose of their study was to illustrate the need to emerge and evolve a transformation rather than make the assumption that constructivist thinking will occur because a technology is adopted. This concept relates to my earlier claim that, direct (intentional) exposure to the stages of small group development and realms of the developmental sequence will influence teacher perceptions of exemplary teams and their understanding of the realms of group development. Within an activity system, participants work towards an object or goal with a division of labor and sharing of roles to accomplish the task (Hung et al., 2006).

Knowledge Forum teams were working on scientific inquiry in a Singaporean school. A computer-supported collaborative learning software package was used to study the transformation from traditional to constructivist learning communities. Scientific problems were provided for student engagement and the researchers met with the teachers to analyze the methods and constructs that were adopted over time (Hung et al., 2006). Ethnography was used to merely observe the environment and the collaborative structures that emerged. Hung et al. (2006) then analyzed the transformatory process in the following categories: school structures and policies, designed activities for learning, and students' thinking. "Communities cannot be pre-designed per se but must evolve" (Hung et al., 2006, p. 54). While norms may be established in my process proposal, the individual teachers and teams must experience the stages of development themselves and determine the means to strive for excellence. However, Street (2004) captures the appropriateness of the social constructivist lens when he stated, "the social constructivist view of learning takes into account that human learning and development are intrinsically

social and interactive” (p. 8). From a Vygotskian perspective, the individual team member, middle school context, and the team itself are inseparable.

Professional Learning Communities

In two significant publications for high school and middle level reform, *Breaking Ranks* represents a comprehensive and systematic approach to improving our nation’s schools (NASSP, 2006). In the middle level edition, nine cornerstone strategies are identified within the vision for school improvement. The second strategy for schools is to “create dynamic teacher teams that are afforded common planning time to help organize and improve the quality and quantity of interactions between teachers and students” (NASSP, 2006, p. 10). As an overarching framework for these cornerstone strategies, three core areas of focus are identified. The first core area describes collaborative leadership and professional learning communities with the specific statement that “teachers and teacher teams will provide the leadership essential to the success of reform and will collaborate with others in the educational community to redefine the role of the teacher and identify sources of support for that redefined role” (NASSP, 2006, p. 23). The notion of small learning communities, such as interdisciplinary teams, has been part of the middle school concept for 40 years (Erb, 2006). Support for the professional learning community concept can be found within and outside of the field of education (DuFour & Eaker, 1998; Erb, 2006; Oxley, 2001; Senge, 1990). Interdisciplinary teams fit within the realm of professional learning communities based upon their membership and purpose; individuals working together and developing shared knowledge as a means of achieving clear goals and objectives.

As a social system, school organizations are complex due to an intricate network of social relationships, events understood in the context of the system, and as service organizations committed to teaching and learning (Hoy & Miskel, 2005). The ultimate goal of the school is student learning. In an effort to best convey the power and purpose behind the professional learning community concept – sometimes called a learning organization – is a series of quotes from experts in the field:

Schools – more than any other kinds of organization - should be learning organizations. They should be places where participants continually expand their capacities to create and achieve, where novel patterns of thinking are encouraged, where collective aspirations are nurtured, where participants learn how to learn together, and where the organization expands its capacity for innovation and problem solving. (Senge in Hoy & Miskel, 2005, p. 33)

Garvin (1993) defines this concept as an organization skilled at creating, acquiring, and transferring knowledge, and at adjusting its actions to reflect new knowledge and insights. Yet another definition of a learning organization is one in which the participants pursue common purposes with a collective commitment to routinely assess the value of those purposes, modifying them when appropriate, and continually developing more effective and efficient ways to achieve those purposes (Hoy & Miskel, 2005).

If schools are to be effective learning organizations, they must find ways to create structures that continuously support teaching and learning; enhance organizational flexibility; develop positive, collaborative organizational cultures and climates; and attract individuals who are secure, confident, and open to change (DuFour, 2007; DuFour

& Eaker, 1998; NASSP, 2006). Transformational leadership, open and continuous communication, and shared decision-making are mechanisms that should and can enhance organizational learning in schools (DuFour, 2007; Erb, 2000). Professional learning communities focus on environments where teachers are organized into collaborative teams that focus their collective efforts on critical questions such as: essential learning outcomes, consistent quality measures for student work, common assessments, data-driven decision-making, continuous improvement process, building shared knowledge among team members, and using collaborative team time to focus on these issues (DuFour, 2007). Effective teams can serve as an exemplar for the professional learning community concept. DuFour (2007) cites a significant body of researchers, such as Darling-Hammond, Fullan, and Sparks, when stating that, “researchers who have studied schools where educators actually engage in PLC practice have consistently cited those practices as our best hope for sustained, substantive school improvement” (p. 5).

As a learning community or community of practice (CoP), a team can be defined as a group of professionals and other stakeholders in pursuit of a shared learning goal and used for professional development. CoPs in education focus on several essential elements: situated within an interdependent system in which individuals are part of or connected to something larger; have a reproduction cycle or ability to regenerate itself as veterans leave and new members enter the community; and move closer to peers who serve as exemplars of mature practice (Buysse, 2003, p. 267). In connection to the concepts of small group research and social constructivism, there are two central tenets of the CoP framework: (a) knowledge is situated in experience, and (b) experience is

understood through critical reflection with others who share this experience. Even the methodology for this study – Participatory Action Research – is grounded in epistemological and ontological beliefs that community of practice emerges based on a natural need, common practice, shared goals, and mutual interests (Wenger, 1998).

Middle School Teaming

Middle schools organized around interdisciplinary teams are now the most common type of school serving young adolescents (Erb, 1997; Hackmann et al., 2002; Jackson & Davis, 2000; NMSA, 2006). The primary type of multidisciplinary team is composed of core academic teachers (e.g., communication arts, social studies, math, and science) who are responsible for the required academic instruction of a contained group of students. The primary responsibilities of teams include the development and implementation of interdisciplinary curriculum, teaching strategies, coordinated interventions for students, and joint communication with parents (Conley et al., 2004). Studies suggest that resistance to new team structures and processes may significantly limit member participation, work coordination, knowledge sharing, and/or development of creative work strategies – with the additional suggestion that further exploration of teacher work groups should be conducted (Conley et al., 2004; Hackmann et al., 2002).

In Chapter 1 of this dissertation, attention was given to the characteristics of teams reported in middle level research. Specifically, the structural characteristics of teams (e.g., number of teachers, number of students, common planning, geographic location, and content areas) were summarized and described from the literature (Jackson & Davis, 2000). In this section, specific attention will be given to empirical studies that have served to illuminate the effect of teaming on student achievement, behavioral

outcomes, and team member interactions. Little (1990) established the statement that students benefit when teachers in schools work in collaborative teams.

The National Association of Secondary School Principals (NASSP) National Middle Level Study surveyed 1,400 principals in the United States and reported the following trends: interdisciplinary teaming was partially or fully implemented in 79% of schools (an increase from the 1992 results); grade 6-7-8 configured schools were most likely to utilize teaming; interdisciplinary teams most frequently included the core curriculum areas of English/CA, social science, mathematics, and science; in 61% of reports, at least three-quarters of the students in schools were involved in interdisciplinary teams; team size – 35% four person, 23% five person, 24% six or more, 18% less than four; and 59% reported individual and team common planning time and 37% reported common planning, but not dual planning (Hackmann et. al, 2002). Recommendations from the analysis of NASSP survey results included: team and individual planning; smaller team size (less than five), heterogeneous student placements; curriculum/instruction to promote student learning; and flexible scheduling to empower team decisions.

Crow and Pounder (2000) studied interdisciplinary teaming at a middle school as a means for studying work group effectiveness. They incorporated Hackman and Oldham's model of effective work groups – originally used in a corporate/industrial setting – that focused on organizational context, design features, and interpersonal processes. Interdisciplinary instructional teams were selected as the participant group based on their potential for substantive school reform given the following characteristics: involve the most school faculty; change the nature of teacher work itself; directly affect

the instruction of students; and establish a close and direct link between the reform efforts and student/school outcomes (Crow & Pounder, 2000). In their review of literature, they make brief mention of the developmental stages of teams, the need for stability for higher functioning, and the value of relevant professional development over time. In addition, the concept of leadership within teams – as a factor that improves performance – is addressed (Crow & Pounder, 2000).

In support of the findings from Shaw and Barrett (1998) discussed earlier in this review, Crow and Pounder (2000) substantiate the conclusions that the best composition of teams includes some differences in attitudes, backgrounds, and experiences, but not a radically different set of people. A suburban middle school (grade 7 to 9) in its second year of work group enhancement was selected for this descriptive design study. The teaming reform had been initiated by the principal. Teams of approximately 12 members were organized by grade level and included teachers from core disciplines and exploratory areas. It is important to note that the majority of middle level teams are configured with approximately 3 to 5 members representing only the core content areas of instruction. The grade configuration (7 to 9) is also atypical of the norm (grade 6 through 8). The findings focused on organizational context, design features, interpersonal processes, and team effectiveness (Crow & Pounder, 2000). Across the four teams in this study, the interpersonal processes strand demonstrated a broad range of effective to ineffective results related to leadership, shared participation, role of core/encore teachers, and levels of curriculum integration. Significant to my study, Crow and Pounder (2000) felt that interpersonal processes needed the most attention in their analysis of team performance.

As mentioned, improvement efforts for middle school teams have historically rested on the implementation of structural characteristics of effective teams with insufficient attention given to the group structure realm of team development (Hackmann et al., 2002; Tuckman, 2001). As reform efforts have been instituted, recommendations often deal with the task activity elements of teaming (e.g. curriculum or students) without significant attention given to group structure and the stages of small group development (Jackson & Davis, 2000; NMSA, 2006). Within the social constructivist framework, knowledge and development are a function of the setting and the task requirements of the job. With groups, the task and interpersonal realms are not mutually exclusive. As demonstrated in this review of literature, more empirical research is needed in the field of education (Hackmann et al., 2002; Levine & Moreland, 1990; Park et al., 2005; Price et al., 2007; Tuckman, 2001). In middle level education, interdepartmental teams strongly identify with the realms of task activity and group structure.

Studies have demonstrated teaming's positive impact on students' attitudes, behavior and academic achievement (Felner, et al., 1997; Erb, 1997; NMSA, 2007). With experience, teams learn to spend more time discussing instructional strategies and coordinating curriculum. Teamed teachers have more positive professional self-images than other teachers, feel less isolated, and have more positive perceptions of teaching (Erb, 1997). Just changing school structures by putting in block schedules, common planning time for teams, and advisory periods does not lead directly to improvement of student performance (Erb, 2000).

While work groups have received greater attention in business literature, the best example in education may be found in middle schools with teachers organized into

interdisciplinary grade-level teams that maintain decision-making responsibilities for their students' educational programs (Conley et al., 2004). However, Conley et al. (2004) describe a lack of theoretically grounded empirical literature that examines the conditions, features, and dynamics of group work that can enhance team effectiveness. The purpose of their study was to analyze the conditions, features, and dynamics that may contribute to effective work groups. Conley et al. (2004) utilized Hackman and Oldham's model for work group effectiveness which asserts that, "organizational context factors, work design factors, and healthy interpersonal process factors influence the effort, knowledge and skills, and appropriateness of strategies applied to work group tasks" (p. 665). Ecological factors, such as the organization's influence on an interdisciplinary team, are part of the researchers' decision to utilize Hackman and Oldham's model for a comprehensive conceptualization of work group effectiveness. According to Conley et al. (2004), the model posits that final group effectiveness is directly influenced by intermediate process variables (e.g., effort and knowledge/skills applied) which have been influenced by initial conditions (e.g., organizational context, work design/structure, and interpersonal processes).

Pounder's (1999) study used a comparative design to test differences between teamed and nonteamed teachers on work characteristics and work-related variables suggested by Hackman and Oldham's (1980) job characteristics model. This study was conducted in a moderate-sized urban/suburban school district with two middle grades schools: one focused on teaming and the other designed as a traditional junior high school. Surveys were completed by teachers from both schools with descriptive statistics and analysis of covariance used to analyze the results.

Pounder's (1999) results indicate that teachers who work in groups (i.e., interdisciplinary teams) report significantly higher levels of (a) skill variety in their work; (b) knowledge of students and their educational characteristics, history, and personal life circumstances; (c) professional growth satisfaction; (d) general job satisfaction; (e) professional commitment; (f) work group helpfulness and effectiveness; (g) internal work motivation; and (h) teacher efficacy that do their non-teaming counterparts. The researcher recommends that additional studies of teacher teams should be conducted to make comparisons with larger sample sizes for greater generalizability. However, Pounder (1999) summarizes that work group enhancement – the decision to support teaming – appears to have “considerable potential for favorably influencing work-related conditions and outcomes for teachers” (p. 339).

The Project on High Performing Learning Communities identified a five-part model to guide research into the effects of *Turning Points* reforms on middle level schools (Felnar et al., 1997; Erb, 2000). The interaction occurs because creating small communities for learning invariably means creating interdisciplinary teams of teachers that have common planning time. Team teachers with common planning time communicate more frequently with families regarding student performance and behavior than do teachers not organized into teams (Flowers, Mertens, and Mulhall, 1999 as cited in Erb, 2000). As components of the change process, these categories help structure the study of teaming (see Figure 2.1). This longitudinal study is based on the degree (intensity) of *Turning Points* recommendations across and within schools over a period of time. The authors argue that reform is an evolutionary and developmental process. As a

result, the researchers' worked to distinguish between the levels of reform implementation into the categories of low, middle, and high implementation.

Table 2.2: Categories of Elements for Team Change (Folner et al.,1997)

Five Categories of Observable Elements Necessary for Change to be Implemented

1. Structural Features: "Do we have the opportunity to do it?"
 - Regular team meeting time
 - Shared students
 - Team space
 - Block schedule
 2. Normative/Attitudinal Features: "Do we want to do this because it is better for students and better for us?"
 - Teachers agree that collaborating is better than working alone.
 - Teachers believe that sharing a common mission is better than pursuing uncoordinated goals.
 3. Skill and Professional Preparation Features: "Do we know how to do this?"
 - Small group decision making
 - Curriculum coordination
 - Jointly managing student behavior
 - Managing a block schedule
 4. Climate and Interactive Processes: "Do we have an environment that enables us and supports us in doing it?"
 - Administrators and teachers communicate regularly about mutual concerns.
 - Cross-team placements and pull-out programs are kept to a minimum.
 - Cross-team communication is facilitated.
 - Communication with support staff is encouraged.
 - Teachers are encouraged to use the block schedule creatively and flexibly.
 5. Instructional/Practice Features: "Do we do it?"
 - Teachers hold parent conferences as needed.
 - Teachers jointly plan for a parent open house.
 - Students are regrouped by need to get extra help in certain subjects.
 - Teachers coordinate homework and testing schedules.
-

Folner et al. (1997) attempted to explicate the influence of structural variables, such as team size, student/teacher ratios, stability of teams, frequency/duration of

common planning periods, and stability of teams/team members. Findings suggested that adolescents in highly implemented schools achieved at a much higher level than those students in non- or low-implemented schools on standardized assessments. They found that the dimensions of teaming (i.e. size, student/teacher ratio, and amount of time) appear to have a significant effect on other *Turning Points* reform strategies (Felnar et al., 1997). This finding is important to my argument that the stages of team development and quality of group structure and task activity components will eventually contribute to student achievement from the intellectual, social, and emotional perspectives.

Common planning time increases contact with building resource staff; coordination of student assignments, assessment, and feedback; quality of teaming as perceived by teachers; parent contact and involvement; and curriculum coordination (Erb, 2000). From their study on teacher talk, experienced team discussion and activities change from attention to students and policy to a discussion of students, instruction, and curriculum (Crow & Pounder, 2000; Felnar et al., 1997; Shaw, 1993; Erb, 2000). This finding is important as it indicates that experience (or time together) is critical for developmental progress. New teams who are learning how to work together spend more time discussing logistics and housekeeping. When teamed teachers regularly use common planning time, and share students, teaching schedules and team space, a positive difference does result (Erb, 1997). Studies have demonstrated teaming's positive impact on students' attitudes, behavior, and academic achievement (Felnar et al., 1997; Erb, 1997).

Within the framework of social constructivist theory and small group research, the challenge of creating effective interdepartmental teams and helping teachers is clear.

According to Hackmann et al. (2002), teams cease to function effectively when teachers are incompatible which makes teacher placement decisions a critical responsibility (see also Hare & Hare, 2002). However, few suggestions are made in middle level literature that address the development of norms or beliefs among teachers or assist current teams in their development as a small group. Weller (1995) cites interdisciplinary team-teaching practices of middle schools and their connection to student achievement gains, increased student self-esteem, and teacher morale as evidence for his claim that effective schools should empower teams of teachers. In connection to the total quality principles, self-managed teams can work to achieve the following outcomes: continuous improvement to meet the needs of the organization, the customer, the team, and the team members themselves. Weller (1995) describes several common problems and potential causes with empowered teams. Teams that are stunted in their sequential development are usually dealing with interpersonal issues versus task understanding (Weller, 1995). Common problems include: lack of cohesion caused by 'taking sides'; false consensus among team members when silence is taken for consent; a leaderless team with poorly defined goals; indifference to the group or lack of trust; harmony versus high standards as the goal; and open hostility based on interpersonal conflicts.

Park et al. (2005) argue that teams comprised of interconnected, trusting, and committed teachers involved in cooperative decision making can enable changes that enhance the connection of professionals and student outcomes and, at the same time, provide the social support and intrinsic organizational rewards that encourage a more collectivistic culture and reinforce the desire to engage, and continue membership in the organization. Their study focused on the attitudinal commitment to the organization. The

argument made by Park et al. (2005) is that a variety of cited studies demonstrate that organizational commitment is positively related to job performance and organizational effectiveness and negatively associated with absenteeism and turnover.

Data-driven research in education suggests additional benefits of teams, such as a more positive working climate for teachers, more frequent interaction between teachers and parents, and higher student achievement scores (Park et al., 2005). Teamwork may also enhance communication, collective responsibility, interdependence, knowledge of other curricular areas, and shared instructional strategies. Trust was identified from the literature as an essential element that allows individuals to feel free to express their ideas, engage in problem solving, and resolve differences of opinion. It is also linked to cooperation, increased organizational commitment, and overall organizational effectiveness (Park et al., 2005). In this study, the researchers looked at multiple levels of teacher commitment – their team, their school, and their organization. Data were collected from 159 participants in three elementary schools and one middle school in the Southeastern United States.

The teamwork survey instrument was developed by Rosenstein and measured seven teamwork components: communication, team orientation, team leadership, monitoring, feedback, back-up behavior, and coordination (Park et al, 2005). The constructs of trust and team commitment were measured by two additional instruments appropriate for this study. The survey categories could potentially be adapted for my proposed study. Results indicated that teachers with higher levels of teamwork skills perceived higher levels of team commitment. Teachers reporting higher levels of team orientation, team leadership, and back-up behavior also perceived higher levels of team

commitment. There were no significant main effects for the demographic analysis of variance, but teachers with eight or more years of service at the current school showed higher levels of team commitment at higher levels of coordination (Park et al., 2005). In their summary, Park et al. (2005) connect their findings with literature showing that organizational commitment is a powerful predictor of organizational behaviors linked to organizational effectiveness. Teamwork was a significant predictor of teacher team commitment. The results also suggest the importance of trust as a fundamental element in the effective teams (Tschannen-Moran, 2001).

Powell and Mills (1994) identified five types of intra-team mentoring that occur: collaborative mentoring, clerical mentoring, professional teacher mentoring, interdisciplinary content mentoring, and social informal mentoring. When beginning an activity, learners depend on others with more experience. The importance of these other aspects of group structure – in addition to literature related to teacher work group effectiveness – should be considered when studying interdisciplinary teaming (Crow & Pounder, 2000). The significant influence of group structure on team performance and the historic focus on structural elements of teams – as compared to interpersonal aspects of development – support the need for empirical research in this area.

Problem Formation

Implementing middle grades reforms requires going beyond new structures to change how people communicate, make decisions, deliver instruction, relate to students, and coordinate their work. “Schools often fail to follow through with ongoing training and consultation, another feature of organizational context, to help teams through stages necessary to become fully functioning” (Fauske & Schelble, 2002 as cited in Conley et

al., 2004, p. 670). Effective school leadership understands that real change is not something that comes easily, not something that results from the imposition of bureaucratic or mechanistic practices (DuFour & Eaker, 1998). The focus on teams and groups was partly caused by research that linked effective teams with improved productivity in the workplace and a growing body of research that links faculty collegiality and collaboration, school climate, and culture with student achievement (Wheelan & Kesselring, 2005). Real change in school organizations is actually about changes in the people who work in those schools, not the practices that teachers can be forced to follow (Crow & Pounder, 2000; Erb, 2006; Pounder, 1999).

As interdepartmental teams, teachers form small groups who construct knowledge individually and collectively and have a natural responsibility (group and task realms) to support student learning and achievement. Within Tuckman's (2001) developmental sequence for small groups, teams need support in recognizing the stages of performance and the differences between task activity and group structure as a vehicle for improved performance. As supported by the research on common problems and dysfunctions with teams, it is reasonably clear that the group structure element will not occur naturally in all cases and requires support/professional development for systematic improvement. Group norming is a non-linear process that invariably results in change; with the understanding that substantive change usually creates discomfort and dissonance as people are asked to act in new ways (DuFour, 2007; DuFour & Eaker, 1998; Hackmann et al., 2002; Lencioni, 2005; NASSP, 2006; Weller, 1995).

From a social constructivist perspective, learning and development can be situated in the concept of the Zone of Proximal Development, which is defined as "the distance

between the actual developmental level as determined through independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (John-Steiner & Mahn, 1996, p. 198). Tension occurs between the needs, experiences, and goals of the innovators and the teachers, or between those of the teachers and the students (Cobb & Yackel, 1996). Described as the storming phase between group formation and norming, the transformation of teams must include attention given to the development of individual/group knowledge, behavior, and shared beliefs. With respect to those interpersonal processes, Crow and Pounder (2000) describe the interpersonal processes necessary for team performance which include: coordinating efforts and fostering commitment; weighting inputs and sharing knowledge; and implementing and inventing performance strategies. In their comprehensive review of teaming literature, they also describe the lack of empirical evidence into the group processes that result in a failure to reaching or sustain the norming and performing stages of small group development.

While we must continue to study the characteristics of effective teams, we must give additional attention to our methods for improving the group structure and task activity potential within existing teams (Hackmann et al., 2002; Lencioni, 2005; Tuckman, 2001). In a nationwide study of ninety-nine schools by Steffes and Valentine, 80 percent of teachers indicated that they received only moderate amounts of or no in-service training for serving on teams (Erb, 2000). The tensions that exist within teams (group structure), within individuals (movement from individual to shared beliefs), and underlying factors (i.e. trust) that affect development deserve empirical attention. Getting a team to function coherently and energetically requires leaders who have a sound

understanding of the middle school concept, of how to create and maintain healthy organizations, and how to energize the people who have been recruited to do the work expected of the schools (Erb, 2006). Vygotsky used the genetic analysis, which examines the origins and history of phenomena, focusing on their interconnectedness, to develop his theoretical framework and guide his research...emphasizing the need to concentrate not on the product of development but on the very process by which higher forms are established (John-Steiner & Mahn, 1996).

Although 79% of schools in the NASSP survey report the implementation of interdisciplinary teaming, it does not serve as conclusive evidence that schools have been successful in fully incorporating effective teaming practices into the middle level experience which can be highlighted by the differences in configuration, definition, and group purpose (Hackmann et al., 2002). In *Turning Points 2000*, the development of teams is described as an evolutionary process. The importance of school leadership in providing sustained focus on teaming practices is critical for professional growth and substantive, lasting improvement (DuFour & Eaker, 1998). The analysis of NASSP survey results suggest our need to move beyond the simple formation of teams to the development of teaming practices that promote improved student achievement (Hackmann et al., 2002). Hackmann et al. add that “because teams cease to function effectively when teachers are incompatible, making teacher placement decisions is a critical responsibility (2002, p. 37).” It is the responsibility of educational leaders to help transform existing teams through knowledge and research-based interventions.

Summary

Small group development, social constructivist learning theory, and middle level teaming research serve as the broad sets of readings that inform this study proposal. Effective middle level teams serve as a vital structure in middle level education with certain structural and demographic characteristics (Hackmann, et. al., 2002; Jackson & Davis, 2000; NASSP, 2006). The focus on teams and groups was partly caused by research that linked effective teams with improved productivity in the workplace and a growing body of research that links faculty collegiality and collaboration, school climate, and culture with student achievement (Wheelan and Kesselring, 2005). In effective schools, the members of those teams understand their responsibility as a professional learning community with the responsibility of meeting the various learning needs of students (NASSP, 2006; DuFour & Eaker, 2000; DuFour, 2007). By focusing on the group structure and task activity realms within the stages of small group development, it is possible for individual team members to become more aware of the levels and types of interactions occurring in their group (Tuckman, 2001).

CHAPTER III

METHODOLOGY

Introduction

The complexity of individual and small group behavior cannot be easily influenced through a linear, sequential process. Reviewed from a philosophical, ontological, and epistemological perspective, I realized that a deeper understanding of group dynamics might illuminate and inform the interdepartmental teaming issue in a meaningful and authentic manner. In a review of qualitative research articles and textbooks, I connected my research interests with many aspects of the qualitative approach and methodology (Delamont, 2002; Glesne, 2006; Shank, 2006). From a design perspective, I explored qualitative research with the following ideas: (a) variables were complex, interwoven, and difficult to measure (or anticipate); (b) reality and learning were socially constructed and could best be defined as the co-construction of knowledge from an individual and social context; (c) my personal involvement in the setting and background knowledge of the field inspired my passion for increasing my understanding of the phenomenon; and (d) a thick description of this phenomenon could help a portion of the educational community increase their knowledge and awareness at one site (Glesne, 2006). As a researcher, I wanted to “understand and interpret how the various participants in a social setting construct the world around them” (Glesne, 2006, p. 4).

As I studied the literature related to middle school teaming, small group development, and related learning theories (e.g., social-cultural, social constructivist, and situated learning), the connections began to emerge. As indicated in the review of literature, many researchers cited the terminology used by Tuckman (i.e., forming,

storming, norming, performing, and adjourning) and I also felt that his establishment of two realms (i.e., group structure vs. task activity) appropriately served as part of my theoretical framework (2001; see Table 1.1). If working together, I firmly believed that the collective knowledge and efficacy of a small team of teachers had the capacity to reach high levels of performance and consequently improve the teaching and learning process (Conley et al., 2004; Crow & Pounder, 2000; Hackmann et al., 2002; Pounder, 1999). Ultimately, the behavior and decisions of team members had a direct effect on the learning environment, learning experiences of students, and student achievement. A qualitative study allowed me the opportunity to deeply describe the small group dynamics and beliefs of middle school teams in a single school setting after experiencing a norming process. I also wrote a thick description of the influence of those processes which helped to illuminate the ideas and aid understanding of the mechanism. Shank (2006) describes qualitative research as a form of systematic empirical inquiry into meaning. Based upon twelve years in middle level education and my review of literature, there was significant potential value to this research.

As an outline for this chapter, the fundamental elements of Participatory Action Research (PAR) are reviewed. An overview of the research study then describes the following areas: site evaluation; setting; participants; confidentiality; data sources; and data collection techniques. In their entirety, the procedures for the study are presented. This section is divided into pre-study tasks, process intervention, and follow-up interviews. Finally, I discuss the data analysis procedures and issues of trustworthiness.

Participatory Action Research

Located at the constructivist end of the research and knowledge paradigm, action research has gained popularity in the education field as a means to improving practice (Glesne, 2006; Owen, 2004). In this methodology, the researcher works directly and collaboratively with the study participants as the co-agents for change. Stringer (1999) outlines the concept of community-based action research as follows: defining the problem, building contextual understanding, and taking collective action to resolve or lessen the problem. Action Research and/or Participatory Action Research (PAR) is collaborative and inclusive of all major stakeholders with the researcher acting as a facilitator in the interactive process of change (Glesne, 2006; Kemmis & McTaggart, 2000). The constructivist nature of PAR aligns with the fundamental nature of small groups, social constructivist learning theory, and by extension – middle level teams as communities of practice. A brief overview of PAR frames the setting, procedures, and data collection methods that were utilized in this study.

According to Kemmis and McTaggart (2000), PAR is “a combination of individual and group perspectives with objective and subjective components in a reflexive process” (p. 595). It is a form of insider research where participants see themselves from two perspectives: as researcher (outside-in) and participant (member of the social setting). “Participatory action research offers an opportunity to create forums in which people can join one another as co-participants in the struggle to re-make the practices in which they interact” (Kemmis & McTaggart, 2000, p. 595). Given the historic focus on team characteristics and tasks – instead of the more complex consideration of interpersonal group structure and stages of development – PAR offered

the possibility to gain insight into the influence of professional development and a collaborative norming process on teacher perceptions of exemplary teams (Hackmann et al., 2002).

Participatory Action Research (PAR) has evolved as an extension of applied research into practical social settings with participants taking on roles formally occupied by social researchers. In my study, I led a process where “participants are taking an active, agential role in changing the processes of construction of social realities” (Kemmis & McTaggart, 2000, p. 573). Specifically, I studied a process that helped inform members and transform teams as the core structural element of middle level education. A review of methodological literature indicated that PAR usually emerges in situations where people want to make changes thoughtfully after critical reflection. It involves an understanding of the practice being studied and fits naturally within the social constructivist perspective. The strengths and limitations of PAR were reviewed with a generalization that PAR was low tech for its methodological sophistication, but that it may have significant epistemological benefits for participants in the settings. In addition, a thick description of that process helped inform similar settings and participants across various disciplines that work with small groups (Delamont, 2002; Glesne, 2006; Kemmis & McTaggart, 2000). Further illumination of this methodology was gained from a review of studies completed with this approach.

An example of community-based PAR can be found in the work of Hutzler (2007). The researcher studied participants’ perceptions of community in a West End neighborhood in Cincinnati, Ohio. An asset-based art project was implemented and two murals were created. By gaining access, trust, and participation, the researcher was able

to lead an asset-based mapping process to identify strengths and needs in the community. The researcher clearly acknowledged her position when she writes, “As a participant in this (PAR) study, my own perceptions and learning were central to the study’s goals in the implementation of this study to create social change” (Hutzel, 2007, p.300).

The antecedent was an asset-based community art curriculum with a theoretical frame of social action methods of art education, community art, and community development. Results indicated that participants realized their own ability to improve community aesthetics, reclaim a playground associated with drugs/violence, and improved social change as a result of the art curriculum. The context of the study (West End) and its history were fully described. As one strength of PAR, the researcher and participants were deeply involved. The importance of mutual trust and commitment by the participants was critical (Hutzel, 2007).

According to Gosin, Dustman, and Harthun (2003), challenges of the collaborative nature of PAR include: lack of trust/respect among participants; conflicts over perspectives and processes; degree of community representation; and disputes over the equity of power relations among academics and participants. The extent to which organizers or researchers guide processes and the extent to which the community members make decisions are important issues of power. “Researchers should analyze the power relationships they establish with community members and should redefine themselves as ‘consultant to the community,’ providing technical and/or informational support to facilitate the mobilization of the community” (Gosin et al., 2003, p.365).

Gosin et al. selected PAR for the collaborative development of a prevention curriculum for the following reasons: (a) combine researchers and participant knowledge;

(b) foster ownership; (c) increase expertise in participants; and (d) promote a more rigorous evaluation of the intervention (Gosin et al., 2003). As I considered my dissertation interest in PAR and the structure/function of interdisciplinary teams, I tried to accomplish the same objectives in answering my proposed research questions. The hierarchical and bureaucratic governance of schools may disempower teachers if final decisions are made at a higher – above the teacher/team – level. I was particularly concerned about this limitation. In the selection of potential sites, it was critical that the principal and/or central level leadership support the initiative and work of the teacher teams.

The philosophical overlap between PAR, social constructivism, and small groups was further illustrated in a review of communities of practice (CoP). According to Buysse, Sparkman, and Wesley (2003), CoPs in education have these essential characteristics:

share a common cultural and historical heritage; situated within an interdependent system in which individuals are part of or connected to something larger; has a reproduction cycle or ability to regenerate itself as veterans leave and new members enter the community and move closer to peers who serve as exemplars of mature practice. (p.267)

Also reviewed in the concept of situated learning theory, learning is grounded in daily activities and cannot be separated from the complex environments in which knowledge must be applied. Knowledge is acquired through experience and transfers only to similar situations; and learning is the result of social processes that require negotiation and problem-solving with others (Buysse et al., 2003).

Since qualitative researchers tend to view reality as socially constructed and the researcher interacts with participants in order to understand their social constructions, action researchers must assess ethical behavior in their role (Owen, 2004). Several of the dilemmas facing researchers who utilize PAR methodologies include: research with vulnerable populations (e.g., children); the level of invasiveness; power relationships between participant-researchers and study participants; conflict of interest (e.g., backyard research); and maintaining informed consent throughout the process (Owen, 2004). I needed to consider dilemmas, such as identifying the participants, building rapport and trust, and weighing the benefit of the research. Although teams of teachers are not oppressed communities, it was action research and product based collaboration within the context of adult learning (Kemmis & McTaggart, 2000; Darling-Hammond, 1999).

Site Evaluation

Walford (2001) describes the importance of choosing an appropriate research site in his discussion of qualitative research in education. Given some of the difficulties in accessing what is perceived as the best site (e.g., gatekeepers, time, protected populations, and multiple levels of IRB approval), educational researchers may choose a convenient site or backyard location to conduct their research. It is also common for qualitative researchers to look for a typical school with the hope that findings will provide a degree of generalizability (Glesne, 2006). It was my intention to select a site that met several criteria for typicality: grade configuration, teaming at multiple grade levels, team size (number of faculty and students), and belief in the middle level concept (indicated through membership to the Pennsylvania Middle School Association, National

Middle School Association, and/or building artifacts/mission supporting the tenets of those middle level organizations). With those common elements aside, it was my goal to achieve “transferability through thick description” (Walford, 2001, p. 15). By clearly describing the setting and participants, it was my goal to help my readers make “informed decisions about the applicability of the findings to their own or other situations” (Walford, 2001, p. 15). I believed that the interdisciplinary nature of my topic lent itself to this methodological approach. I tried to select a site because its’ programs, design, faculty, and/or history offered opportunities for knowledge that were worth discovering.

A copy of the site evaluation matrix for this study can be found in Table 3.1. Given the structure of public education in Pennsylvania, I initially selected a local county as the geographic region which contained over 50 middle schools and/or junior high schools. The State Education Directory (2007) and County Intermediate Unit Directory (2007) served as two primary sources for accessing school information. In addition, the State Department of Education website also contained links to school information, such as student enrollment, building names, grade level configurations, and student achievement on the Pennsylvania System of School Assessment tests (www.state.department.education.org). By aggregating the data from these schools and comparing that information to results from the National Association of Secondary School Principals (NASSP) National Survey of Middle Level Principals, I was able to narrow the list of potential sites for consideration.

Table 3.1 Site Evaluation Matrix (Reproduction)

School District School Name	Grades	Enroll.	Teams (Grades)	Teams (Total #)	Team Size Range	PSSA Reading Proficiency	PSSA Math Proficiency	PMSA NMSA MS Phil.
Potential Middle School	6 – 7 – 8	720	6 - 7	4	3 - 5	87%	89%	PMSA Member School

Typical case sampling was used as the initial criteria for site selection. Given my role as a building principal and reputation in my community, I felt that the power structures and conflict of interest necessitated an external site (i.e., eliminating the ethical considerations of backyard research). Initial criteria for narrowing the selection process included: 6-7-8 configuration; interdisciplinary teaming in at least two grade levels; teams comprised of core academic teachers only; team size limited to the range of 2 – 6 teachers; enrollment that necessitates multiple teams at each grade level; no major restructuring of faculty or mission in recent history; and explicit or tacit support of the middle level philosophy through institutional membership in professional organizations or an established support of middle level ideals through the building mission or handbook. When necessary, a phone call was made to each of the fifty schools in this region to complete the site selection matrix (see sample in Table 3.1). Given the preliminary nature of the request and directory level of information, no explanation was given to a school for the purpose of the information.

Setting

Triumph Area School District (TASD) in Triumph Township, located north of a mid-major city in the northeastern United States, is a vibrant professional community with approximately 18,000 residents. Easily accessible from the State Turnpike and local highways, TASD covers 16-square miles that include portions of local parks, trails, and an expanding business district. Unique among neighboring districts, the boundaries of the municipality coincide with the school districts, leading to partnerships between the school district and community agencies. Adjacent to the main campus is the newly-constructed Community Center, community park, pool, and other recreational facilities which benefit students as well as other residents.

The TASD maintains an enrollment of approximately 3100 students in their K – 12 schools. TASD serves its students with three elementary schools (K – 5), one middle school (grades 6 – 8), and one high school (grades 9 – 12). The administrative offices are connected to the middle school building. Additional characteristics of TASD include:

- Identified as an outperformer by Standard and Poor's Evaluation Services;
- In 2006, TASD was ranked third in the State based on three years of State test score data by a local business magazine;
- Earned national recognition by being the first in the USA to be designated by the Academic Development Institute as Effective School Communities based on the success of an Elementary School Community Councils;
- Several schools have achieved United States Department of Education National Blue Ribbon Schools of Distinction status;

- TASD earned the highest rating in the county in the Standard and Poor's Return on Spending Index. The return on spending index calculates the ratio of school district spending with student proficiency in math and reading;
- About 95% of TASD graduates continue onto higher education;
- College Board scores are consistently above national averages;
- TASD High School is accredited by the Middle States Association of Colleges and Secondary Schools and the State Department of Public Education;
- TASD was recognized on two occasions as a Model School District by the Department of Education, Bureau of Special Education, for implementing best practices for inclusiveness in the regular education classroom.

Since only one middle school with multiple teams was selected for this study, the PAR methodology used for the research design happened in a single case. A complete demographic description of that school is contained in the results Chapter of this dissertation. A complete description of the teaming structure in that school sets an important contextual foundation for the implementation of teams in the building. In general, the settings for data collection included: conference rooms and classrooms for individual teacher interviews; a classroom for the staff development sessions and group processes; administrative offices for principal and/or superintendent interviews; and additional locations for observations of authentic team activities (e.g., classrooms, conference spaces, and planning rooms). Additional settings for interviews may occur based upon the needs of the participants and the emergent nature of qualitative research.

Participants

Given the nature of this study, the selection of a site and consent of relevant school personnel for participation in the study were crucial to success. Specifically, I obtained the direct involvement of the school principal and assistant principal, core team teachers, and the support of a central administrative representative (i.e., superintendent or assistant superintendent). In addition, I met with representatives of the TASD Federation of Teachers to garner their support with the project. While most interactions occurred with the core academic teachers that comprise the interdepartmental teams, the support of building and school districts' leaders was vital for the sustainability of the initiative. The administrators also served as critical gatekeepers in gaining access to the site (Pounder, 1999).

During the individual interviews and team-based professional development sessions/collaborative process, the teachers participated without administrative oversight. When presenting a lay summary of the proposed study, I specifically addressed issues of participation/non-participation and invited the teachers to participate in the study through the informed consent letter. Teachers had several days to decide whether they would be willing to participate in the study. The principal and assistant principal were not made aware of the identity of the teachers that were interviewed and also were not present at the time of the team sessions and not informed about issues of teacher participation or non-participation. While I continued to review the entire process and progress with the principal and assistant principal and kept them updated on the study progress, the individual feedback and input given by the teacher participants were not shared with building administration. Specific and sustained attention was given to the influence of

power on the freedom of teachers to (a) participate, (b) not participate, (c) be open and honest in their participation, and (d) address any issues of interpersonal conflict that arose.

Confidentiality

The proposal for this dissertation was submitted to the Internal Review Board (IRB) at Duquesne University for expedited approval. Approval was granted in mid-January 2008, and the issue of confidentiality was addressed within the principal and teacher consent forms (see Appendix C and D). Given that all participants were 18 years of age or older, informed consent was obtained for each participant. Because the data collection methods included audio-taping and a secured record of participants existed, it was necessary to pursue expedited review from the IRB. As a component of the IRB procedural safeguards, the confidentiality of participants was addressed.

Throughout the research study, confidentiality was assured with all participants. In developing a culture of trust and rapport within this PAR study, it was critical that participants understood that their comments would not be shared with others except through the written completion of the dissertation. Participants were assured that pseudonyms would be used in describing the individuals and other identifiers within the school setting. Since trust is a fundamental aspect of small group development, I felt it was important to explicitly model the actions and effort used to maintain confidentiality (Tschannen-Moran, 2001).

Data Sources and Collection Techniques

As a method for ensuring both data and participant triangulation, primary and secondary sources were used for data collection and analysis. The teachers, building-level

administrators, and central office administrative participants served as primary sources of data. In addition, observations of the professional development sessions and collaborative norming process were also used as a primary source. Secondary sources included artifacts (e.g., team handbooks, meeting minutes, and building/school district documents) and an observation of spaces within the setting (e.g., classrooms, planning rooms, and offices).

Discussed in more detail in the trustworthiness section of this Chapter, the use of multiple data-collection methods was used for increased credibility and validity of the data (Glesne, 2006). Data triangulation occurred through the use of interviews, participant observation, and artifact analysis. Multiple interview sessions were held with each participant to help determine the influence of the norming process and action research on elements related to the research questions. An informal version of focus group interviews – based on team composition – were also held throughout the group processes as a source of data. Observations occurred during team meetings, staff development sessions, and interviews throughout the research period. Finally, relevant artifacts (e.g., mission statement, school handbook, team handbook, and classroom posters) were analyzed to help establish the contextual foundation for teaming at Triumph Middle School and for any relationship to the research questions. School district publications and web resources were crucial in describing the larger setting for the study. Triangulation occurred through interviews of two different types of participant: team teachers and building level administration. These techniques were selected to elicit data needed to gain understanding of the phenomenon in question, contribute different perspectives on the issue, and make the effective use of the time available for data-collection (Glesne, 2006).

Procedure

The procedures for this study are described and outlined in a chronological manner. Given the emergent nature of qualitative methods and participatory action research (PAR), the actual procedures used in the study varied slightly from the anticipated procedures outlined in the study proposal. The reasons for these minor changes are included in the discussion section of this report.

Pre-Study

As the initial step in this study, I contacted a central level administrator in the TASD via telephone and letter (see Appendix A). I provided an overview of the study purpose, design, time commitment, and potential costs/benefits at a one-on-one meeting held at the central office. After earning the support of central office, that administrator contacted the building principal to establish the initial building contact. I then scheduled a meeting with the building level administrative team and the federation teacher-representative to conduct a similar overview meeting. Held in the conference room of the middle school, I received the support of those key leaders and established a date for the overview meeting with team teachers. The principal cancelled a pre-planned staff meeting as additional incentive for the team teachers to attend the overview meeting. However, specific attention was given to ensuring that teachers even had the choice of attending that initial meeting.

In early February 2008, the study overview was provided to all participants explaining relevant details and study serving as necessary communication before informed consent could be obtained (Glesne, 2006). The overview meeting was held in the school library and teachers were invited to attend that meeting via an introductory

letter that I had placed into their school mailbox (see Appendix B). The building administration was not present at the meeting – as indicated in the invitation letter – and no details of the teachers’ participation was provided to administration. In general, the overview covered the following topics: my background; the general design of the study; potential benefits and risks to participants; site selection criteria; confidentiality and informed consent procedures; the breadth, depth, and timeline for the study; and the data collection methods that would be utilized (Glesne, 2006). A brief question and answer session was held at the conclusion of the meeting to clarify content. Prospective teachers were given a copy of the informed consent form and asked to return that form to a designated area by the end of that week. Sixteen of the twenty possible teachers voluntarily agreed to participate in the study. After discussion with my dissertation chairperson, it was determined that we had sufficient participation to conduct the fieldwork.

Baseline Interviews and Document Collection

The research questions identified in the introduction of this study addressed several aspects of team interactions within the Tuckman (2001) framework after a collaborative norming activity. As a result, it was important for me to learn the initial perceptions of the participants related to the questions being studied and about teaming in general. It was also appropriate to gather relevant documents from the school that would help illuminate examples of teaming, school philosophy, mission, and procedures that depict the structure of that school (e.g., a copy of the master schedule would identify the length of periods, types of individual/team planning, and any changes in those structures across grade levels).

Two levels or tiers of participation were possible for the teachers. In the first tier, teachers agreed to participate in the full study including the individual interview process. In the second tier, teachers indicated a willingness to only participate in the professional development sessions and small group collaborative process. Semi-structured interviews were held with each individual participant in tier one. In addition to the beginning stages of developing trust and rapport (Glesne, 2006), these questions were designed to illicit responses about the following topics: team structure, team roles, procedures/routines, types of activities, stability of membership, task activities, group structure/interactions, the existence of shared values, and the consistency of perspectives on the purposes and functions of middle level teaming (see Appendix E). The interviews were mostly held in the individual teachers' classroom to create a comfortable setting and lasted between 40 and 60 minutes. Fifteen interviews were conducted over a period of two weeks in late February.

The document collection and artifact review were designed to occur at the same time as the initial interviews. I also asked for any documents (e.g., pictures, handbooks, and work samples) that would help illuminate team operations and structures in this school. The concurrent review of artifacts helped increase my knowledge and awareness of the school at this preliminary stage of the study. The results of the preliminary interviews and document review combine in the next Chapter of this report to establish the contextual foundation for other results. Given the emergent nature of PAR, the interviews also gave me the opportunity to prepare participants for their role in the upcoming research.

Process Intervention

The intervention utilized in this study was a combination of professional development and a collaborative group norming process. In the initial steps of this process, I held parallel meetings with each intact team. In that way, I had the opportunity to observe participant interpersonal interactions in the group structure and task activity realm. I led professional development sessions that provided an empirical context for small group interaction and development (Tuckman, 2001), effective practices for adult learning, common team dysfunctions (Lencioni, 2005; Tuckman, 2001; Weller, 1995), and aspects of group structure – such as trust – that lead to group development (Lencioni, 2005; Tschannen-Moran, 2001). Given a lack of professional development in the building around issues of middle level philosophy and teaming, I added a larger review component to the first session (see Appendix G).

The professional development sessions were planned as a means for further development of rapport, the establishment of the researcher as an expert in the study concepts, and then as additional information for the refinement of the collaborative norming process. These sessions occurred with each team of teachers (i.e., four total teams necessitate four professional development sessions). The professional development sessions lasted approximately 90 minutes and were held in a time slot established to meet the team needs. The sessions were held in the classroom of one of the team members to continue the explicit effort to establish and maintain rapport and participant comfort. Each teacher was given a folder for use in the study to help organize and maintain all study materials. Refreshments were also provided as a means for establishing a positive environment. These sessions were completed during a one week period in mid-March.

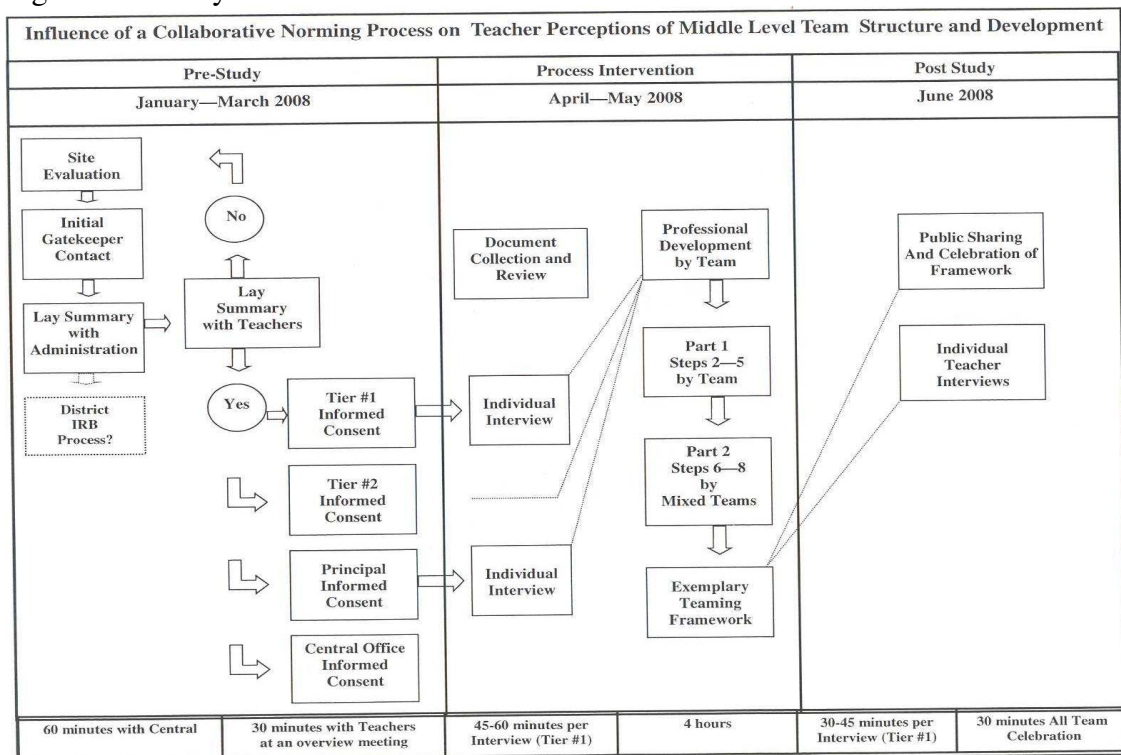
The collaborative norming process utilized in this study was designed with several key components: involvement of all participants at multiple points in the process; professional development related to teaming and small groups; movement from individual beliefs and values to shared beliefs and values; and the expression of shared values in the language of exemplary performance. An adaptation of the nominal grouping method and storyboarding process for small group facilitation were utilized for small group facilitation (Ohio State University, 2000). Throughout the steps in the process, the stages of group development, team interaction, and common dysfunctions were used to highlight and contextualize group action. As mentioned earlier, the emergent nature of PAR allowed me to make decisions in the field based upon the interactions and progress of the group. The principal and assistant principal participation was confined to separate sessions where the overall process and progress of the group were reviewed for feedback. These decisions were made to protect the level and type of participation, if any, given by the teachers.

As the design for this study continued, I reconsidered my plan to utilize an additional facilitator for the collaborative norming process. Given the complexity of small group dynamics discussed in the review of literature, I was concerned that the shared responsibilities of observation and facilitation will result in the loss of meaningful data. In the initial design, I felt that a facilitator trained in my procedures would allow me to focus on observation and note taking. Once into the study, I made the decision to facilitate the process myself. By this stage of the study, I had developed trust and rapport with the participants. Given the social constructivist nature of small group work and the need for trust in collaborative work, I did not want to jeopardize that trust by introducing

a new person (Tschannen-Moran, 2001). Instead, I retained the PAR challenge of being a participant-researcher and maintained my right to actively lead the process (Kemmis & McTaggart, 2000).

Following the team-based professional development, I scheduled a meeting with each of the four teams to conduct the initial steps in the norming process. These steps were designed to move the group from individual beliefs about teaming to the eventual production of a school-based, site specific framework for exemplary teaming. Each individual participant completed step one of the process and each of the four homogeneous teams participated as a team to complete steps two through four (see Appendix K and L).

Figure 3.1: Study Flowchart



The collaborative norming process was organized into the following major steps:

Preliminary Process (Individual Belief Statements):

Step One: Individual teacher participants received ten index cards and were asked to independently write 7 – 10 rich, vivid descriptors of an exemplary middle level team related to task activity and group structure elements. Example statements were provided to the team members to increase the quality of thinking and writing. Teachers were encouraged to utilize the resources provided in the professional development session to expand the scope of responses. Finished cards were submitted to a designated folder.

Approximately 140 individual statements were generated through this process.

I used push pins to randomly organize the 140 statements onto McNellis Story Boards (see Appendix L). These boards were prepared prior to the next steps of the process. In this phase, four parallel sessions were held for each team. In late March/early April, I met with the teams to begin working with these statements. The process was repeated four times so that each team would experience the identical set of statements. Since I determined that an outside facilitator may affect trust and rapport, I developed a reflection sheet to record the reactions of each teacher to the steps in this collaborative activity (see Appendix I). Approximately five minutes was provided after each step for participants to summarize their thinking.

Part One (Movement from Individual Belief Statements to Tentative Categories):

Step Two: An adaptation of the nominal grouping technique was used with each team (separately and independently from other teams) for the initial work with

the 140 statements. Teachers were asked to read the cards and silently (to avoid over-talking which may have stalled the process) move the individual cards into groups/clusters based upon similarities of topic or theme. The teams used approximately 20 - 25 minutes to complete this task.

Step Three: Each team (separately and with the assistance of talking) surveyed the initial categories/clusters and then worked to move/combine/alter those groups for increased clarity. At the end of this session, they generated a tentative heading or title for each cluster that best summarized the theme for that grouping. This step also lasted approximately 25 minutes.

Step Four: Teams then reviewed the groupings and tentative category headers. They began to condense and reduce the total number of cards by stacking similar items with one push-pin. Instead of 140 descriptive statements, each team was able to reduce the total number of cards. Extraneous or inappropriate cards were grouped at the bottom of the board. This step last approximately 20 minutes.

At the conclusion of this step, each of the four teams had created their own version of a condensed board with major categories and critical statements. The final steps of the collaborative norming process were conducted in two heterogeneous groups. Those groups had members from each of the four teams. In this way, each group represented a microcosm of the larger team teacher population. Teachers had the choice of becoming involved in Steps Five and Six or Steps Seven and Eight. Since the goal of the collaborative norming process was the creation of a site-specific framework for

exemplary teaming, it was critical that team teachers began working and interacting with each other. Similar to the previous steps, a reflection sheet was generated to capture individual responses to each part of the process (see Appendix M and N).

Part Two (Belief Refinement, Consensus, and Exemplary Framework Design):

Step Five: *The first heterogeneous group was charged with the task of reviewing the four boards that were created at the end of Step Four. Since each team was represented, participants discussed the decisions and thinking of each group. The first task was to identify the major and final category titles to reflect each grouping. One set of individual statements was then utilized for the subsequent steps.*

Step Six: *After identifying the final category headings, the heterogeneous team then prioritized the descriptors within each grouping into a single vertical line from most to least important. Team members also had the ability to remove statements that did not meet the task objective. One final board with prioritized descriptors resulted from the last two steps.*

Step Seven: *The final steps of the collaborative norming process were probably the most intellectually difficult and frustrating of the process. The eight teachers forming this heterogeneous small group were subdivided into writing teams of two teachers. These teams took the highest priority concepts contained in each group of cards to write a final statement that summarizes the content in a descriptive fashion at the exemplary level.*

Step Eight: The entire group reviewed each set of final statements for clarification and feedback. While finishing a draft copy of the exemplary level statements, the teachers were asked to write each statement at the highest level of performance.

During these steps of the collaborative norming process, I served as a facilitator and observer. Data – in the form of my observation notes, the individual teacher reflection sheets, and the draft framework – were collected to record participant interactions, group structure, and decision-making. The draft framework was then placed in a word document and distributed to all study participants for their review.

Follow-up Interviews

Prior to the last two heterogeneous groups, every teacher was involved in each step of the norming process. I then held individual interviews with each participant to determine the influence of the norming process and better understand the consequences – intended and unintended – of the study procedures. This final data collection strategy provided the participants with a semi-structured opportunity to reflect on the entire process and consider the implications of an exemplary teaming framework for their school.

Celebration

Given the PAR methodology and collaborative nature of the small group activity, I completed the study and exited the research site by holding a celebratory breakfast for the participants. The breakfast served as thanks for teacher participation and effort throughout the stages of the process. It also served as a semi-public celebration of the exemplary teaming framework. Future implications of the framework will be determined.

Data Analysis

Anfara, Brown, and Mangione (2002) address the issue of quality and rigor in qualitative research from a historical perspective. More specifically, they situate current discussions in the field and explain their suggestions for “assessing and publicly disclosing the methodological rigor and analytic defensibility of qualitative research” (p. 28). They outline a process that helps align the research questions, data sources, themes, categories, and findings. In their first major observation, they describe the important idea that the primary critics of qualitative rigor are not the positivistic quantitative theorists, but instead, qualitative researchers are concerned with “drift” from conventional standards of trustworthiness and credibility.

As their basic viewpoint, Anfara et al. (2002) believe that researchers should “account for and disclose their approach to all aspects of the research process” (p. 28) as a means to evaluating and promoting the quality of work. Rigor is defined as the attempt to make the steps from data collection to findings/discussion public and transparent. By explaining the process and methods used to identify themes, address trustworthiness, and explain interview (or data collection) protocol, Anfara et al. (2002) believe that the quality of the research can be improved. As evidence to support their argument, the following quote seems appropriate: “Since we are committed to opening the private lives of participants to the public, it is ironic that our methods of data collection and analysis often remain private and unavailable for public inspection” (Constas as cited in Anfara et al., p. 29). Similar to Glesne (2002), the strategies of prolonged engagement, member checks, triangulation, thick description, purposive sampling, and reflexivity are described (Anfara et al., 2002).

In this study, data analysis occurred throughout each stage in a constant comparative style (Charmaz, 2000). Given the fundamental nature of PAR and the emergent nature of group processes, I utilized information from data analysis during each step to guide decisions within the study. For example, participant reactions and engagement within the professional development activities helped determine the time invested in that component of the study. Found in the sociological tradition, I planned to utilize thematic analysis when reviewing data in this study.

Transcripts from the interview sessions, observation notes, and artifacts were reviewed, coded, segregated in themes/clusters, and further analyzed (Glesne, 2006). As a means for extracting useful information from the study, I then “categorized, synthesized, searched for patterns, and interpreted the data” that had been collected (Glesne, 2006, p. 147). As an example of this process, I developed a field notebook to include initial reactions and thoughts in the form of reflective analytic memorandums. Files were organized by type (i.e., transcripts, observation notes, and artifacts), participant, and stage of the study.

The initial attempts at coding the data – while the study was being conducted – were designed for specificity. I attempted to identify specific information early in the analysis so that I had the flexibility to recombine or group items later in the study (Delamont, 2002). By reviewing the initial interview transcriptions during the early stages of the study, I was able to become more familiar with the participants, data, and the early emergence of themes. “Coding is a progressive process of sorting and defining and defining and sorting those scraps of collected data...that are applicable to your research purpose” (Glesne, 2006, p. 152). Coffey and Atkinson (1996) describe the

process when they write, “Coding qualitative data enables the researcher to recognize and re-contextualize data, allowing a fresh view of what is there. Because coding inevitably involves the reading and re-reading of data and making selections from the data, it involves interpreting the data set” (p. 46). My initial work included the following: identifying labels; theme clarification; ‘flagging’ the theme; qualifications of the theme; and exclusion/differentiation between themes (Shank, 2006). The chronological nature of the study generated the structure for communicating the emergent themes and patterns within the data. My own experiences and beliefs were connected to the decision-making process in data analysis and were fully addressed as my stance in the research (Coffey & Atkinson, 1996). Early attempts at categorizing and coding the data led to a more detailed process that connects the findings to the theoretical framework.

Trustworthiness

As a type of qualitative methodology, trustworthiness (i.e. research validity) was given thoughtful attention during the pre-study phase of design and revisited throughout the data collection process (Glesne, 2006). In the *Handbook of Research on Teaching*, Lather (2001) describes the variety of perspectives on validity in qualitative education research and the changes and/or differences in viewpoints by experts in the field. Credibility in this study was addressed through attention to verification procedures broadly described in the literature, such as: prolonged engagement in the field; triangulation of data sources and collection methods; peer review; clarification of researcher bias; member checking; and rich, thick description (Glesne, 2006; Lather, 2001; Lincoln & Denzin, 2000). By embedding multiple criteria into the site and participant selection phase of the study, a high degree of trustworthiness was established.

CHAPTER IV

RESULTS

Introduction

In this study, I was actively engaged in the site for a period of three months. During that time, I completed the following actions: conducted initial interviews to set the context for the study; collected and analyzed artifacts; led small group professional development sessions; facilitated a process to identify individual teacher beliefs and create a shared framework for exemplary teaming; and held follow-up interviews with participants to assess the influence of those actions on teacher perceptions of middle level group structure and development. Given the emergent nature of this type of qualitative research, I constantly monitored the process and participants to make appropriate methodological decisions. Data analysis occurred throughout each stage of the study as a critical technique for addressing the needs of the group.

In this Chapter, I begin by creating a detailed picture of the setting and context for this study. For example, the building lay-out and master schedule will be described to help inform the interactions and structures in the school. I will then outline themes from the initial interviews that helped me establish rapport and determine the level of need for professional development related to middle level philosophy and teaming. Next, I will present the participant reflections to the collaborative norming processes to illustrate the influence of those activities on teacher perceptions of teams. The analysis and coding of the interview transcripts and reflection notes – along with the process that I utilized – will also be provided to support the findings. Finally, I will frame the results of the follow-up interviews within the context of the research questions for this study.

Research Questions

The following research questions were developed as the basis for this study.

These questions provides a framework for interpreting the results:

1. What themes emerge when an interdepartmental team is led through an exercise designed to identify individual beliefs as a teacher and shared beliefs as a team?
2. How does that collaborative norming process influence previously held teacher perceptions of team performance and behavior?
3. What tensions emerge in the group process and how do those tensions influence decisions to engage in debate around key ideas?
4. How does explicit instruction and awareness of the forming, storming, and norming stages of small group development inform those perceptions and practices?
5. What unintended consequences (e.g., teacher-to-teacher, teacher-to-student, and/or principal-to-teacher) or other themes emerged for teachers as a result of this activity/process?

Setting and Context

Triumph Area School District (TASD), located north of a mid-major city in the northeastern United States, is a professional community with approximately 18,000 residents. Easily accessible from the State Turnpike and local highways, TASD covers 16-square miles that include portions of local parks, trails, and an expanding business district. The boundaries of the municipality coincide with the school district's, leading to partnerships between the school district and community agencies. The TASD maintains an enrollment of approximately 3100 students in their K – 12 schools. TASD serves its

students with three elementary schools (K – 5), one middle school (grades 6 – 8), and one high school (grades 9 – 12). The administrative offices are connected to the middle school building.

Triumph Middle School (TMS) serves approximately 746 sixth, seventh, and eighth grade students in the Triumph Area School District. Each grade level maintains about 250 students with equal numbers of males and females. When analyzing demographic factors, TMS had the following composition: race/ethnicity is primarily white (96.7%) with smaller percentages of black (<1%), Hispanic (<1%), Asian (1.7%), and multi-ethnic (<1%). In other demographic categories of the student population, TMS has an economically disadvantaged (7.7%), special education (10.7%), and English Language Learners (<1%). Please see Table 4.1 for a summary of academic performance on the 2006/2007 Pennsylvania State System of Assessment (www.pde.state.pa.us/).

Table 4.1: Percentage of Advanced/Proficient Students on Reading/Math PSSA

Grade Level	Enrollment	Math Advanced/Proficient	Reading Advanced/Proficient
Sixth	256	83.4%	84.4%
Seventh	240	92.1%	88.8%
Eighth	250	86.4%	93.6%
Total	746	87.2%	88.8%

Teaming existed in the sixth and seventh grades at TMS. At each of those grade levels, two teams were assigned half of the students each. For example, with 250 students at the sixth grade level, each five person team was responsible for 125 students. Each team represented a microcosm of the overall student population with similar proportions of boys, girls, gifted education, special education, and music education. The master schedule was designed to provide common planning time for team teachers and common

instructional time for students. In addition, the teams were placed in close geographic proximity to create the smaller school-within-a-school concept outlined in middle level literature (Jackson & Davis, 2000; NMSA, 2006).

Artifact Review

As one component of the initial data collection process, participants provided documents and artifacts used during the school year in relationship to teaming. Examples of those artifacts included: the student/parent handbook, middle school program of studies, bell schedule, team handbooks, parent orientation agendas, activities calendar, master schedules, building maps, and various other letters and forms of communication. Taken from the Triumph Middle School Program of Studies, the academic environment was described in the following manner:

The middle school encompasses grades six, seven, and eight.

In grades six and seven the academic teachers employ a team approach...the five academic teachers work together as a team to coordinate curriculum, plan interdisciplinary activities and share insights about the progress and needs of each student.

Students also pursue art, music, wellness, family and consumer science, world languages and technology education through the rotation classes. (2008, p. 2)

The five person teams are comprised of the core academic areas of reading, English, science, social studies, and math. Of the two guidance counselors on staff, each one was assigned to cover one sixth grade team, one seventh grade team, and half of the

eighth grade students. The general schedule for sixth and seventh grade students and teachers is represented in Table 4.2.

Table 4.2: Bell Schedule and Instructional Design

Period	Grade 6	Period	Grade 7
1	Core Academic*	1	Core Academic*
2	Core Academic*	2	Core Academic*
3	Exploratory Rotations#	3	Core Academic*
4	Exploratory Rotations#	Lunch	Lunch
5	Core Academic*	4	Ext. Learn
Lunch	Lunch	5	Core Academic*
6	Ext. Learn	6	Core Academic*
7	Core Academic*	7	Exploratory Rotations#
8	Core Academic*	8	Exploratory Rotations#

* Indicates that the students are “on team” for these courses.

Indicates common planning time when students are at exploratory classes.

Given this schedule, the core academic designation represents reading, English, science, social studies, and math classes. For example, all students on Sixth Grade Team A begin the day with core academic courses in periods one and two. During period one, the 125 students assigned to that team are divided into five groups of approximately 25 students per class. At the end of period one, students transition to another core academic course for period two. During periods three and four, the students on Team 6A move to their exploratory rotation classes of music, physical education, art, technology education, and family and consumer sciences. At that same time, the five teachers on Team 6A are scheduled for common planning time.

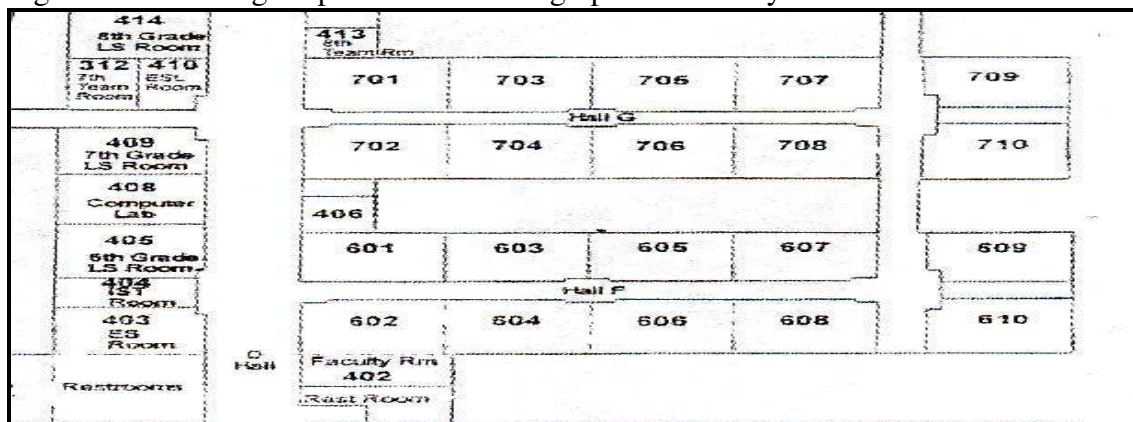
Common planning time is a suggested component of middle level education (Hackmann, et al., 2002; Jackson & Davis, 2000; NMSA, 1995; NMSA, 2006). At TMS, both teams at the sixth grade level have their common planning at the same time. This particular scheduling format has been utilized at TMS for the past two years. It is during

this scheduled time that the major tasks of the team are planned and completed. For example, formal team meetings are scheduled to discuss student performance, field trip planning, interdisciplinary activities, and miscellaneous issues.

Building Lay-out

Triumph Middle School underwent renovations in 2003. As part of that process, the physical lay-out was transformed to support the teaming concept (see Figure 4.1). A main academic hallway runs from the main office/foyer area to the school cafeteria. As you move down this hallway, the first side hall contained ten sixth grade classrooms. The classrooms and lockers for Team 6A were located on one side of the hallway with Team 6B located on the other side. In all cases, the content experts from one team (e.g., mathematics) were located directly across the hall from their counterpart on the other team. As you continued down the main academic hallway, the second side hall supports the seventh grade teams. In most cases, the team classes were again adjacent to one another and across from department colleagues. In both hallways, the end of the hall contained additional instructional support – such as a learning support resource classroom – in close proximity to the teams.

Figure 4.1: Building Map to Illustrate Geographic Proximity of Teams



* Hall F = Sixth Grade Hall/Hall G = Seventh Grade Hall

Team Structure

Faculty members in the core content areas of sixth and seventh grades were organized into four five-person teams, hereafter referred to as Team 6A, Team 6B, Team 7A, and Team 7B. For this study, I had the potential to elicit participation from 20 teachers and two building level administrators. Following the overview meeting, I received the informed consent of 18 professionals – 16 teachers and both administrators. Eleven teachers and two administrators agreed to full participation in both the individual interviews and the group processes. Five additional teachers agreed to participate in all of the group processes without the individual interview. The organizational structure and levels of participation by teachers and administrators is reflected in Table 4.3.

Table 4.3: Participation Summary

Team 6A	Team 6B	Team 7A	Team 7B	Administration
Reading ¹	Reading ¹	Reading ¹	Reading ²	Principal ³
English ¹	English ^{dnp}	English ¹	English ²	Assistant Principal ³
Mathematics ¹	Mathematics ²	Mathematics ¹	Mathematics ¹	
Science ¹	Science ¹	Science ^{dnp}	Science ²	
Social Studies ¹	Social Studies ^{dnp}	Social Studies ^{dnp}	Social Studies ²	

¹ – Full participation in both the individual interviews and group processes

² – Participation in group processes only

³ – Participation in interviews only with awareness of study progress

^{dnp} – Did not participate

Given the study design, the high percentage of participation – 18 of 22 (82%) – was critical. In addition to the levels of participation, a breakdown of additional educational characteristics further establishes the site context and participants. In Tables 4.4 – 4.7, I have established general demographic information about the study participants. The information is displayed by current team.

Table 4.4: Demographic Information on Participants for Team 6A

Team 6A	Gender	Years Exp.	Years at School	Years on Team	Certification(s)*
Reading	Female	27	24	15	E; RS; MsM; EC; P; CS
English	Female	25	18	16	SE; RS
Mathematics	Female	17	10	10	E
Science	Female	13	10	10	E; SS
Social Studies	Male	25	20	16	E

*Certification Abbreviations: E = Elementary certified; RS = Reading Specialist; MsM = Middle School Math; MsE = Middle School English; P = Principal; SE = Secondary English; SM = Secondary Math; SS = Secondary Science; SSt. = Secondary Social Studies; EC = Early Childhood; CS = Curriculum/Supervision; H/PE = Health and Physical Education.

Table 4.5: Demographic Information on Participants for Team 6B

Team 6B	Gender	Years Exp.	Years at School	Years on Team	Certification(s)*
Reading	Female	15	4	4	E; RS
Mathematics	Female	11	9	4	E; MsM
Science	Male	15	15	14	E; SS

*See abbreviations in Table 4.4.

Table 4.6: Demographic Information on Participants for Team 7A

Team 7A	Gender	Years Exp.	Years at School	Years on Team	Certification(s)*
Reading	Female	31	23	16	E; RS; CS
English	Female	12	9	9	E; SE; RS
Mathematics	Male	10	9	9	SM

*See abbreviations in Table 4.4.

Table 4.7: Demographic Information on Participants for Team 7B

Team 7B	Gender	Years Exp.	Years at School	Years on Team	Certification(s)
Reading	Female	23	19	16	RS
English	Female	15	6	6	SE
Mathematics	Female	11	11	10	E; MsM
Science	Male	34	20	16	MsS; H/PE
Social Studies	Female	8	1	1	SSt.

*See abbreviations in Table 4.7.

Initial Interviews

The research questions identified in the introduction of this study addressed several aspects of team interactions after a collaborative norming activity. Tuckman's (2001) model for the stages of small group development (see Table 1.1) was used to interpret some of the interactions. As a result, it was important for me to learn the initial perceptions of the participants related to the questions being studied and teaming in general. Given the participatory action research methodology and emergent nature of this socially constructed research, I designed a set of initial interview questions to help set the conditions, context, and background for the study (see Table 4.8).

Table 4.8: Semi-Structured Initial Interview Questions for Teachers

1. How do you define teaming?
 2. What are the major functions and/or purposes of middle school teams?
 3. Please paint a picture of some of the things that you do and/or talk about as a team.
 4. Do you have informal or formal roles? If yes, how are those roles determined?
 5. Does a common vision exist for teams?
 6. Are there common points of emphasis or expectations for team action/behavior? If yes, how are those determined?
 7. In your time at this middle school, have you focused on the teaming concept through professional development (formal or informal)?
 8. How does your team get better at teaming? Where would you start?
 9. When your team changes personnel due to retirement, enrollment, maternity leave, etc., how are new team members brought into the group? Are there formal or informal steps that are followed?
 10. Are you familiar with the stages of small group development?
 11. Can you share your general thoughts about group dynamics?
 12. What are some of the common dysfunctions or challenges with a team?
 13. How do you make decisions as a small group?
 14. Have you ever disagreed on a topic? Please describe that experience. What happened to resolve the matter?
 15. How do you generate agreement and shared understanding?
 16. Do you work in an intentional manner to improve team member interactions and group dynamics?
 17. What would you like to say about your team in a year that you can't say now?
-

Organized around the main themes outlined in the literature review, participant responses to these questions allowed me to revise the professional development components of the study. Analyzed for general themes and existing conditions, the results from these interviews and the concurrent document analyses helped illustrate the nature of teaming at TMS and the beliefs of the teacher participants and administrators in this study.

Results from Initial Interviews

The transition from a junior high school to a team-based middle school at TMS occurred in 1991. An outside consultant was utilized to provide the background rationale for teaming and training to the initial teams and team teachers. Of the 16 teacher participants in this study, only six were part of the TMS faculty at the time of the initial training in 1991. Based on the initial interview results, there has been no professional development or focus on the concepts and functions of teams since that initial training in 1991/1992. Since I was in the beginning stages of developing trust and rapport with participants (Glesne, 2006), these interview questions were designed to illicit responses about the following topics: team structure, team roles, procedures/routines, types of activities, stability of membership, task activities, group structure/interactions, the existence of shared values, and the consistency of perspectives on the purposes and functions of middle level teaming (see Appendix E). Organized in a narrative format, the general results from the initial interviews conducted with teachers are listed below and organized by theme.

Purpose and Function of Teams

The consensus definition for teaming provided by the teachers was best summarized by one of the sixth grade teachers as, “a group of teachers working with a group of students...the same students...in the five core subjects” (Denise). Described as a benefit of interdepartmental teaming, another teachers states, “I might not see something in particular about one of the other students that one of the other teachers does...maybe I get to know one of the students in a little different way so we get a better insight into the student” (Tom). The primary function or goal of teaming identified by the teachers centered on meeting student needs. All of the teachers interviewed responded that teaming provided the structure to better understand students’ academic strengths and weaknesses, particularly the opportunity to support struggling students. Less mention was made in relation to the other developmental needs – social, emotional, moral, and physical – described by the literature on middle level education (NMSA, 1995). With respect to the goals and functions of teaming, there was a general uncertainty about whether teams were “doing the right things.”

One other teacher had prior experiences at another school district with teaming. Of the remaining nine teachers, most described no formal training with middle level philosophy or teaming. One teacher shared the following, “...to be honest with you, I don’t think I’ve ever been told or trained about the goals of teaming...it begs the question ‘how is this supposed to be used?’” (Laura). As the teachers described other purposes of teaming, diverse perspectives on topics such as interdisciplinary units, field trips, and team-building emerged. In addition to the focus of teams, many of the teachers expressed a concern that “teaming doesn’t seem to be valued as much anymore.” “Teaming has

taken a back seat to other things...differentiation...co-teaching...we even have team teachers who have to teach a section of another grade level...so they don't have the tutorial time...it makes it harder to meet" (Jill).

When analyzing the responses of teachers with respect to middle level research, it was evident that most comments focused on providing additional support and remediation for the struggling students. Very few comments were made about intentional efforts to recognize or celebrate student work, effort, or improvement. Similarly, teachers did not describe a process or focus on developing team identity and/or spirit. Finally, only five teachers mentioned the role of teaming in helping to create a developmentally appropriate transition for students as they leave elementary school and enter the middle school. The seventh grade teachers described the transition to eighth grade with more consistency than the fifth-to-sixth or sixth-to-seventh transition.

Common Vision for Teams

Since the original training and vision setting occurred in 1991, teachers responded that the vision for teams was implied versus explicit. Shared points of emphasis included the focus on students mentioned earlier and developing some interdisciplinary units. Given the limited focus on formal professional development in teaming and the gradual turn-over in staff over the years, a type of oral history and gradual norming or enculturation occurred. When a new teacher joins a team, they begin to see the established routines and patterns on the team. As a result, their perspective on the purpose of teams is framed by their experiences at the particular school with the specific team. The vision and/or points of emphasis described by all of the teachers were informally established. Based on the interviews with the two building administrators and the teacher

responses, the principals have not given specific directives or requirements for team meetings and/or team activities. While there is an implicit expectation for teams to meet on a weekly basis, that expectation is more historic than explicit. Several teachers mentioned a curiosity about what their team colleagues were saying about the state of teaming in the building.

Group Dynamics

Although the question was not specifically stated, most of the teachers expressed pride in membership on their particular team. More than one teacher described a feeling that their team was the “dream team” – even though they were on different teams! As mentioned previously, a formal approach to the adoption of teaming principles occurred in 1991. In the past fifteen years, all efforts to improve the group dynamics and interactions of teams has been informal versus intentional. Most teachers referred to “personalities” as the primary indicator of interpersonal interaction between team teachers. With respect to the forming, storming, and norming stages of small group development, the consensus of teacher opinion could be described with the following statement, “I think it’s through time...as you get to know each other and as we get comfortable with how each other teaches” (Mindy). In terms of group decision making processes, a theme emerged that “we just talk about it...and if it seems that everyone is o.k. with it, we do it.” Several teachers mentioned decision making terms such as “democracy” and “consensus” but most teachers indicated that they were unfamiliar with the stages of group development and various types of decision making and conflict resolution. When asked about the induction of new teachers into each team, the teachers and administrators described teacher participation in the interview process – both content

specialty and team membership – to help ensure an appropriate match in terms of interpersonal dynamics. Mentors for new hires were assigned based on content area – not team membership. From the initial interviews, I received mixed reviews about the processes used to induct new team members. By overwhelming majority, participants agreed that a very informal process was used to rebuild the team and establish procedures and routines.

Based on the group structure realm of Tuckman's (2001) framework, I gathered preliminary feedback about group dynamics related to the establishment of formal or informal roles on the team. Each team had one designated team leader. Although the title of the position was formal, the job was not connected to any supplemental pay or benefits. In some cases, the role of team leader rotated on a yearly basis. On Team 6A, the team leader has been the same for many years. In general, the team leader helps to organize the agenda for team meetings – formally and informally – and coordinate tasks and communication within the team. In all cases, the informal roles of the team naturally emerged based on the strengths of the individuals. "I think over time we've figured out what everybody's strengths and weaknesses are" (Mindy).

Given the research questions and the storming phase of Tuckman's (2001) work, I asked additional questions about the processes used to resolve disagreements and/or tensions on the team. Based on the teachers' responses, disagreements were identified as a reality of the team process, but they were not described as a significant problem or concern. The nature or level of tension has a direct impact on whether the teachers "get into it" or not. "Going back to think about it...the bigger fights we used to have were about curriculum and whether or not...how far outside curriculum boundaries you could

go for a mini-unit or something like that” (Jill). “This is weird...a team is almost like a family...if it is a tension it will eventually come out...if someone makes a suggestion that I don’t think is all that...I am willing to go along with the program up to a point...if I feel really strongly about something I will let it be known and I think we are all that way...if someone is really dead set against (an idea) we won’t do it” (Tom). These feelings were echoed in the comments of other teachers.

Norming Process

Since the initial interviews indicated that formal training on middle level philosophy and teaming had not occurred since the original transition to teaming in 1991, I provided the teachers with current research related to teaming and middle level reform (see Appendix G). Teachers were also introduced to Tuckman’s (2001) framework on the stages of small group development and the dysfunctions of teams shared by Lencioni (2005). As described in the methodology section of this report, I provided explicit information and practice in focusing on the group structure realm of the small group framework through a trust-based activity. Teachers were asked to write anecdotal reflections at each step of the norming process. Since the overarching purpose of this study was to determine the influence of collaborative norming process and professional development on teacher perceptions of middle level team structure and development, it is appropriate to report teacher reactions to each stage of the participatory action research study.

The following verbatim comments summarize teacher reactions to the initial professional development activities (see Appendix I). In my efforts to be completely transparent with each step of the collaborative norming process, I have included the

written statements for each teacher for each step. I am reporting their intact statement to fully illustrate the reactions to the activities. In Chapter III of this dissertation, the steps were explained in a chronological manner. I have utilized the same chronological order to report the results of those steps. In later portions of this Chapter and Chapter V, I will include additional discussion about the findings. Even though I utilized a PAR methodology, I also utilized rather structured steps in the process (see Chapter III). During the course of each group's work, I would prompt, encourage, or extend their thinking by asking questions and/or clarifying their thinking.

Since these activities occurred with participants on the homogeneous teams, I have organized their reactions by team:

Professional Development

Team 6A

Allowed time to reflect upon a process that just happens without much thought...dynamics within the groups and comparing that to the classroom. (Mindy)

I was thinking about the fact that we really haven't had much in service on updating teaming perspectives or information for well-over ten years. I appreciated the information provided. (Denise)

It was interesting to see some of the research findings about teaming and how they fit my perceptions. (Tom)

The information shared and the writing of the cards reminded me of the goals of teaming. Since we haven't had much time I can't say my actions have changed. (Melissa)

Team 6B

Though there sometimes seems to be waning of the teaming concept, it actually remains a strong method used in many middle schools. (Don)

The information that stuck with me was the research you shared about how academics in middle school are usually secondary, the social/emotional dimensions are the primary adjustment and should be the focus. (Leslie)

I realize I know very little about what the philosophy and reasoning for teaming in Triumph are. I feel like the entire team has to buy into the ideas in order for it to be effective. (Linda)

Team 7A

I was sorry that we didn't have all our members because I felt we were preaching to the choir on some of the ideas. I didn't realize that we were different in some areas. I always assume everyone thinks like me. (Jill)

Made me think what I would look for if I were to assemble a new team. (Rob).

I actually think the first meeting got me thinking about a lot of things...the middle school concept, the role of a middle school teacher, the team, and middle school as a transition. (Cindy)

Team 7B

Nice to hear the expectations of my team members, I really felt good about the activities we have developed together this year-affirmation of a job well done, I'm still trying to get them to send a positive note home to our stellar students quarterly. (Janet)

Additional insight into team members, especially the newest ones to the team, who had not been part of any development-actions towards their comments. (Margie)

Considering roles within the team instead of just team leader's. (Kim)

It's been a long time since we've done some personal reflections so it was refreshing especially with two newer team members and seeing how men react differently to situations as the women. (Fred)

Individual Card Activity (Step 1)

As the final step of this stage, individual teacher participants received ten index cards and were asked to independently write 7 – 10 rich, vivid descriptors of an exemplary middle level team related to task activity and group structure elements. Example statements were provided to the team members to increase the quality of

thinking and writing. Teachers were encouraged to utilize the resources provided in the professional development session to expand the scope of responses. Finished cards were submitted to a designated folder. Approximately 140 individual statements were generated through this process. Organized in a team-by-team structure, reactions to the development of individual statements include:

Team 6A

Coming up with answers for the cards wasn't as difficult as I had imagined. It was a good activity for self reflection. (Denise)

I found this activity interesting because it gave me an opportunity to really examine what I believe about the structure of an effective team and to see how those beliefs fit in with our team. (Tom)

I feel like I didn't take as much time as I could have to complete the cards due to the deadline. (Ruth)

It was challenging at first but I could have completed more cards as I went on. (Melissa)

Team 6B

It gave me time to reflect on what are the many positive aspects of teaming as well as an opportunity to visualize what I would like to see. (Don)

I could easily come up with two or three goals and struggled coming up with more. It sort of forced me to look into the literature that you left.

Once I got into the literature I couldn't put it down. (Leslie)

It was very difficult for me to do this activity because I wanted to work as a group not individually. It forced me to really think about my goals for teaming. (Linda)

Team 7A

It was hard. I couldn't come up with ideas without looking through the materials. (Jill)

Questions I would ask to interview (a new hire). (Rob)

It was difficult to come up with 7-10 different items...I felt like I was repeating myself until I got on a roll. (Cindy)

Team 7B

Good exercise for focusing on what we learned and reviewed of best practices...I am interested in what others shared. (Janet)

Made me stop and think about roles within team function that had just been ongoing without thought or reflection. (Margie)

It was interesting to develop the cards...I had about 5-6 good ideas then I was stuck. This made me re-think our group ideas. (Kim)

Honestly, after 20+ years of teaming a lot of the perfect team concepts blur together. I had a difficult time coming up with my cards...each situation is always different for each team. (Fred)

Homogeneous Grouping Activities (Steps 2 – 5)

As we entered the next phase of the study process, each homogeneous team participated in the same steps and procedures (see Appendix K). The session began with a written reflection statement from the previous session designed to activate prior knowledge. The next sections describe the individual teacher reflections to each step of the process.

Nominal Grouping Technique (Step 2)

The team members were then given instructions for the first group task – use of the nominal grouping technique – to view the 140 individual statements that were randomly organized on a bulletin-type board and group those statements by similar concepts. This first step took teams between 14 – 20 minutes. Without being permitted to talk, the teams identified a range of 7 – 12 main groupings or headings in this step. The individual reflections about this first step of the norming process were written immediately after the work – without discussion – and resulted in the following comments:

Team 6A

It was difficult to sort through without clear headings. Also interesting to see how everyone sorted the cards. Finally...who took the lead on the project and how we interacted without conversation. Similar roles emerged even without conversation. (Mindy)

Some individuals silently take the lead in this activity. Many topics were easily recognized and similarly described. What a great checklist idea for new or experienced teams...we're still a little disorganized. (Denise)

Very difficult to do as we couldn't discuss categories to put the cards into...such as 1. support kids, 2. support each other, 3. classroom management, 4. communication, etc. (Tom)

It was difficult to choose categories or groups for some of the topics. Some things were repetitive and could have been eliminated. It was nice to be able to see everyone's ideas put out on the boards. (Ruth)

The group worked well to try to create common categories. At times I wasn't aware of what was being done on the other board. The time limit was frustrating...I wanted to switch some cards without offending the person who originally placed it. (Melissa)

Team 6B

There were many consistencies among the cards. The groupings changed as the activity progressed. The most challenging part was trying to keep the big picture in mind. Many of the ideas on the cards were the same as my own thoughts. I found myself agreeing with a lot of what was said. (Don)

This activity was overwhelming due to the volume of cards. I could spend two more hours putting them into subcategories. I noticed some broad themes...team responsibility...collaboration... administration...support. (Leslie)

It was interesting to see the common themes in objectives. Silence was a great way to focus on what we saw on the board and the themes that emerged as a team. There was no change be another from category to category. (Linda)

Team 7A

Pretty cool...ideas overlap enormously and it was difficult to pin-point one specific main idea sometimes...lots of the same thoughts by other teams. (Jill)

Interpretations were different as far as how to classify something. (Rob)

A lot of the statements were very similar so it was difficult. I saw one of my statements on the list, though (comic relief). I thought we did OK with it...it was easier than it looked at first. (Cindy)

Team 7B

We silently came to a consensus on major themes and that was surprising. I liked the chance to see what others found to be the components of a successful team. (Janet)

Nothing on the board I disagreed with...no apparent disagreements.

(Margie)

Much more emphasis on the team not the student...many ideas are overlapping bit with more time at least five major columns could be developed. (Kim)

Probably only three or four main grouping areas in my mind...surprising!

With 140 individual cards that we could group them that quickly. (Fred)

Re-Grouping with Tentative Header (Step 3)

In the next step of the research process, team members were permitted to talk while they reviewed and possibly reorganized the initial statement groups. When considering all four teams, this step lasted between 20 – 25 minutes and a similar written reflection occurred at the conclusion of the step:

Team 6A

Adding the headings was helpful to taxonimize but was conflicted with opinions. On the other hand, we engaged in dialogue which was beneficial to coming to terms with the headings. (Mindy)

We seem to sense that our professional goals are important both by the number of items and by the somewhat divided issue of the list. (Denise)

Would be easier to start with broad categories before looking at the cards.

Second step would be to refine the categories after the cards were grouped. (Tom)

Trying to limit the number of groups helped us to combine ideas to create groups with more substance. (Ruth)

Some categories were easy to see and group while others had more gray areas. Being able to talk helped to sort out meaning and come to a group consensus. (Melissa)

Team 6B

It is interesting to hear the thoughts of the other team members. What the consistencies in thoughts are as well as the random thoughts of others. (Don)

Your interjections brought an awareness to team member's personalities...I'm too bossyL . (Leslie)

Reflective of most of our team meetings...trying to get everyone to focus on one thing at a time before moving on. (Linda)

Team 7A

Was much, much harder...people didn't agree and categories overlapped and it was hard to place in one topic area...people aren't specific enough. (Jill)

Tough to come to agreement with everyone on certain issues...some people always have to be right and others don't care. (Rob)

This was difficult because some of the items that were written contained several ideas on one card. It was very hard to break them down...some were vague. (Cindy)

Team 7B

It was interesting to see how four people could have such different points of view. Overall consensus was easily accomplished. (Janet)

Worked well...discussion led to agreement...everyone participated...positive. (Margie)

Much easier to do this because I needed clarification on some cards...other members help when 140 cards gets overwhelming. (Kim)

The women gave me a chance to talk-yes! Liked the ability of our team grouping in larger categories...we worked it out quite nicely without confusion. (Fred)

Item Reduction/Consolidation (Step 4)

In the next step of the collaborative norming process, team members were asked to reduce the total number of items (i.e. 140) by stacking similar comments in one pile and placing that pile on the board with one pin. Through this process, the team members were able to focus attention on the main groupings and key ideas in each group. This was the final step in the homogeneous group process. When considering the four teams, this step lasted between 15 – 25 minutes.

Team 6A

Trying to give merit to every comment yet reduce was difficult but much easier taken as a group. (Mindy)

A little tedious at this point but worth while. I like working together to solve our disagreements. (Denise)

Gave me a better idea of what each statement really means. Got closer to a set of core beliefs. (Tom)

By combining more ideas the process now becomes more workable. It was overwhelming when first considering all of the topics but with the combination of concepts it makes it easier to see the direction this is heading. (Ruth)

While we started working on different categories it became easier when getting input and hashing it out with others. (Melissa)

Team 6B

Some of the cards were straightforward and easy to consolidate while others had similar ideas but may fit under more than one main idea. The communication idea was the easiest while team concepts were a lot more diverse. (Don)

When looking more critically I was getting bogged down on the language.

It was difficult to keep it in the same category-I wanted to make more categories. (Leslie)

There are many common themes between all of the teams. It was much easier to consolidate and agree after categorizing. (Linda)

Team 7A

The cross-over topics were very hard to categorize and to me personally you can't really separate the idea from each other...very draining. (Jill)

It was difficult to narrow down to one idea...frustration was setting in. (Rob)

I didn't like this step. I started losing interest in it because it was driving me bonkers to look at it for so long...I guess I'm not an over-achiever. (Cindy)

Team 7B

Most challenging section...hard to consolidate the ideas of others not really knowing what their point of view was. Overall, I felt we were efficient. (Janet)

This step was the most difficult but we did seem to all work together once we identified the big or overall ideas and had a plan in mind. (Margie)

Difficult to do...still wanted to have multiple categories...hard to locate the best one to have on top. (Kim)

Found that most could be condensed into a few specific topics. Team identity was the toughest compression due to so many cards. (Fred)

Heterogeneous Grouping Activity (Steps 6 – 7)

In the previous aspects of the study, teachers were either participating as an individual teacher (i.e., interview) or within their regular team. At this point of the study, teachers were asked to volunteer for one of two different heterogeneous groups. Each group contained eight people representing all four teams. The first group had the responsibility of analyzing the four different team boards and condensing those boards to one school-based board. This group was required to condense the categories to four or five main concepts. They had the opportunity to re-title or rename those groups. As their final step, this first group then needed to prioritize in vertical rank order the various statements under each title.

The second heterogeneous group then had the responsibility of re-writing the key concepts within each category in a manner that would guide team actions at an exemplary level (see Appendix L). While the first group had the responsibility of dealing with broad concepts, the second group was faced with the challenge of detailed writing and consensus. Teachers had the opportunity to self-select heterogeneous group one or two based upon their perceived strengths and/or interests.

Reaction to Four Team Boards

Faced with the four team boards – results from the each team’s completion of steps 1 – 4 – the first heterogeneous group was given the opportunity to review the boards. This initial activity was designed to activate prior knowledge and refresh the mind of each participant relative to the previous task. Comments included:

I didn’t necessarily see weaknesses rather many shared ideas in grouping structure. It gives me the perception that some ideas of teaming are shared school-wide. (Linda)

It seems that the statements were grouped similarly by each team. The only major differences seem to be in the headings. (Tom)

Liked these terms for groupings on other boards: climate, whole child, team dynamics and team unity...ten versus six groupings. (Fred)

Strengths were team dynamics and academic support. Weakness was administrative support. (Melissa)

I found it interesting how different groups turned out to be varied in the number of categories. I felt locked into my particular group headings...it was hard for me to see why we broke some things down. I’m happy that there was general agreement on communication and team identity. (Janet)

There were a number of like categories. Some were more specifically grouped than others. I think everyone perceived communication as important. (Leslie)

Extremely focused on kids...each mentioned administration... only my group listed goals and expectations differently. (Rob)

Final Headings (Step 5)

After reviewing the different boards, the heterogeneous group then needed to identify four to five category headings that could be used as the organizational framework for the team-based value statements. A fifth board had been set in the middle of the other boards for the group to utilize in their brainstorming process. Since each homogeneous team had identified their own category headers, the mixed group had the opportunity to use those headings to start the discussion. It took approximately 45 minutes for the group to finalize their final headings.

Comments from the activity include:

Interpretation of headings made this activity complicated. The interaction and engagement of all members was positive. I still see a lot of unclear areas...I'm not really satisfied with the main headings yet. (Linda)

I think we were more reluctant to step on anyone's toes about how we should group them. Once we decided on major categories it was easier. (Tom)

I like the larger headings since most areas fit in pretty easily minus a few that bordered or didn't fit into a category. Once we figured out that if we didn't take some positive interaction to finish the boards we'd still be sitting here not done, we were fine. (Fred)

Things were much easier once we picked categories and placed topics in the categories. There was too much discussion at the beginning without action. (Melissa)

It was a long arduous process...not as easy as when it was done in teams...people's suggestions were ignored and I felt the quieter people's voice was not heard for choosing titles. I will say the categories seemed to work well because each statement was easily placed. (Janet)

We started with what we thought were good categories and decided...not necessarily by consensus...on a broad start. The group was a whole worked well together but there was a formality not evident within the team. (Leslie)

Once we decided to get moving instead of arguing it worked out. No one wanted to take charge. We were talking about very minute points. (Rob)

Statement Prioritization/Ranking (Step 6)

In the final step of their work, the first heterogeneous group needed to move the individual stacked cards under the new headings. They were required to prioritize their perception of the relative importance of each stack by placing the cards in a vertical

column. Lasting approximately 35 minutes, the group completed this stage with a board that had four headings and four columns of prioritized cards. The cards still contained the original statements written by participants. Reflections from this step follow:

This was difficult. There were too many overlapping concepts. 140 concepts were overwhelming. I think that when the four teams categorized there were too many differences between teams. (Linda)

Very difficult because we kept going back to category headings...not enough discussion on how to prioritize. (Tom)

I thought the group dynamics were productive and effective after some initial combativeness, but that's what makes teaming dynamics so interesting. (Fred)

Once the categories were chosen it was not difficult to put topics in order of priority. (Melissa)

The prioritization was not an issue...problem again reverted back to naming of the categories. I think it was an important step in the process...it helped to better define what our ultimate focus should be. (Janet)

The group focused well to define the categories and subgroups. (Leslie)

Difficult summing up everyone's ideas under one topic...difficult naming groups. We had an easier time ranking than naming. (Rob)

Heterogeneous Grouping Activity (Steps 7 – 8)

In this final activity, the last heterogeneous group was challenged with the task of creating the first draft of the exemplary teaming framework for Triumph Middle School. The group began by reviewing the condensed board and prioritized statements completed by the other group. In the next step, four pairs of teachers – not a teammate – were organized to re-write the key statements within their heading. Examples were shared with the groups to help guide their understanding of the process.

Category Writing (Step 7)

There were several cards that could have been placed in one of the other categories. Once we began condensing the cards, there were some we found irrelevant. In the end, I was impressed by the final product and the process of how it came together...an all around great activity. (Jill)

Hard to differentiate what the meaning was because they were written by someone else even though we felt we knew what they were saying.

Talking through it worked. (Margie)

Difficult to take other's thoughts and make them your own. It's very open to interpretation. It was interesting to see how many sub categories there were. (Don)

It was somewhat difficult to differentiate the meanings that were similar yet different when the words were not our own. (Ruth)

The list was overwhelming at first. However, common themes began to emerge and the task seemed more manageable. (Denise)

This is still frustrating to try to place all of these ideas into just a few categories. But, I do see areas where our team can benefit...things you just let slip by. (Kim)

This part wasn't actually that hard. My (partner) is really good at coming up with the language...pretty darn good for a science teacher. We came up with our five categories pretty quickly and in perfect agreement. He's easy to work with and doesn't labor too much over anything. (Cindy)

We struggled with finding the best way to restate the listed statements. We found that some of our statements fit better under different columns. (Laura)

Draft Framework for Teaming at Triumph Middle School (Step 8)

In the final step of the collaborative norming process, the re-written statements were placed into a word document. The second heterogeneous group of teachers worked in flexible groups to revise and strengthen the final statements (see Appendix P). The reactions to the final step in the process were:

The continual process of condensing and editing the framework allowed us to find possible changes in how it is put together. Healthy discussions allowed us to come to a consensus on many statements. I found that what I

originally was satisfied with improved with others input...very useful.

(Jill)

Good to share with others and work together to make changes across the board. This was a very good experience! The document will hopefully be used by the district for new hires who are on teams. (Margie)

I think it's a great idea...I like all of the constructs. My personal problem is that if we believe it enough to write it, we should actually do it! I have my doubts that it happens. (Don)

We're really refining our thoughts quite well and seem to be on the same page. I'm seeing more relevance at each meeting as to how we can utilize this process. (Ruth)

Today's activity was much easier. The group worked well together with acceptance of suggestions and open discussion. (Denise)

Finally...it really did turn into a framework. I think our team can benefit from a document like this. (Kim)

This was tedious...I felt like it was something like what I've done in graduate school...honing in the language and changing words. I didn't really enjoy this much. (Cindy)

I'm proud to see the level of professionalism among our teams. It was nice to see our colleagues work so well together...what a nice product. (Laura)

Celebration of the Framework

At the conclusion of step eight, the draft framework for exemplary teaming was shared with all participants – teachers and administrators (see Figure 4.2 and Appendix P). Teachers were asked to review the major categories and value statements within each column prior to the final individual interview. As a component of PAR, a celebratory breakfast was held at the completion of the final individual interviews for all participating teachers. We reviewed the final product and participants had a chance to informally discuss the process that led to the completed work.

Follow-Up Interviews

Anfara, Brown, and Mangione (2002) address the issue of quality and rigor in qualitative research from a historical perspective. More specifically, they situate current discussions in the field and explain their suggestions for “assessing and publicly disclosing the methodological rigor and analytic defensibility of qualitative research” (p. 28). They outline a process that helps align the research questions, data sources, themes, categories, and findings. In their first major observation, they describe the important idea that the primary critics of qualitative rigor are not the positivistic quantitative theorists, but instead, qualitative researchers are concerned with “drift” from conventional standards of trustworthiness and credibility.

As their basic viewpoint, Anfara et al. (2002) believe that researchers should “account for and disclose their approach to all aspects of the research process” as a means to evaluating and promoting the quality of work (p. 28). Rigor is defined as the attempt to make the steps from data collection to findings/discussion public and transparent. By explaining the process and methods used to identify themes, address trustworthiness, and

explain interview (or data collection) protocol, Anfara et al. (2002) believe that the quality of the research can be improved. As evidence to support their argument, the following quote seems appropriate: “Since we are committed to opening the private lives of participants to the public, it is ironic that our methods of data collection and analysis often remain private and unavailable for public inspection” (Constas as cited in Anfara et al., p. 29). Similar to Glesne (2002), the strategies of prolonged engagement, member checks, triangulation, thick description, purposive sampling, and reflexivity are described (Anfara et al., 2002).

Data Analysis

In the next section, I have applied these strategies to my data collection methods. The purpose of this technique was to ensure that questioning techniques – both interview and written reflection responses – provided sufficient coverage of the research questions to allow future analysis. Four primary data collection techniques were utilized in this study to gather information (i.e. observation, document/artifact analysis, pre- and post-individual interviews, and written reflections). After reviewing the initial follow-up questions, I will assess the connection between the research questions and data collection (Tables 4.9 – 4.10).

Figure 4.2: Triumph Middle School Framework for Exemplary Teaming

EXEMPLARY TEAMING FRAMEWORK Triumph Middle School			
INSTRUCTIONAL STRATEGIES	STUDENT CENTERED	PROFESSIONAL DYNAMICS	COMMUNICATION
<ul style="list-style-type: none"> Address individual learning styles, academic strengths and weaknesses through differentiation of content, process, product, and learning environment while remaining cognizant of best practices; Establish common organizational strategies for students and communicate them consistently throughout the subject areas; Incorporate interdisciplinary activities to support curriculum and transference of knowledge and skills across subject areas; Coordinate among team teachers the scheduling of student assignments and assessments; Establish common classroom management practices to create a safe and productive learning environment; 	<ul style="list-style-type: none"> Hold team meetings on a consistent basis to monitor student academic progress as well as student's social and emotional well-being; Establish consistent team expectations for students that foster responsibility, independence, and academic growth; Foster a team environment that allows continuous development of positive rapport and mutual respect with students; Establish rigorous learning expectations for all students including remediation for struggling learners and enrichment for advanced learners; Develop a unified team identity that creates a sense of pride, spirit, and belonging in team teachers and students; 	<ul style="list-style-type: none"> Develop team expectations/rules to be enforced, published and communicated to students and parents; Identify individual roles and responsibilities within the team and create an atmosphere of mutual trust and respect; Share best practices for growth and utilization of team members professional strengths; Create a team environment that allows for flexibility while supporting the curricula of other team members; Foster a cooperative relationship among administration, co-teachers and support personnel; 	<ul style="list-style-type: none"> Promote healthy relationships through regular communication with students, parents, administrators, and team teachers about student accomplishments, team activities, and student concerns; Share pertinent information in a timely manner to facilitate more efficient communication; Use current technology to communicate with all involved individuals; Participate in activities that support the school and community;

Table 4.9: Post Study Teacher Interview Questions

-
1. What do you think was the overall influence of the study processes on your perceptions of team structure and development?
 2. In considering the draft exemplary teaming framework, how does that product influence your initial perceptions of your team's performance and behavior?
 3. In reflecting on your prior perceptions of the similarities and differences between teams, how did your work with all of the individual statements impact those perceptions?
 4. Did you notice any tensions emerge in any steps (homogeneous group vs. heterogeneous group) of the group processes? If yes, what were they?
 5. How do you decide whether to engage in debate about key ideas?
 6. Do you think that this experience will help all four teams work toward the same goals?
 7. How do you think the framework will or should be used? Will this process help you more clearly identify and articulate the major functions and/or purposes of middle school teams?
 8. In the study, I introduced Tuckman's framework for the stages of small group development. Do you feel this framework is appropriate for middle level teams? How did explicit instruction and awareness of the forming, storming, and norming stages of small group development influence your reflections on group performance and behavior?
 9. Did the creation of the framework cause any reactions or pressure (stressors) in the building? Does the possibility of change affect attitudes? What unintended consequences (e.g., teacher-to-teacher, teacher-to-student, and/or principal-to-teacher) or other themes emerged for teachers as a result of this activity/process?
 10. Do you have any other reflections or final thoughts that you would like to share?
-

In Table 4.10, the five primary research questions for this study are reviewed. To ensure appropriate data collection for each question, I identified the interview questions and/or reflection questions that provided relevant data for analysis. For example, the general themes that emerged from the collaborative norming process are addressed through an analysis of all three reflection sheets and five of the final interview questions. As an active participant and facilitator of these processes, I had the opportunity to observe all activities and record observation notes during each session.

Table 4.10: Research Questions in Relation to Interview and Reflection Questions

Research Question(s)	Question*
1. What themes emerge when an interdepartmental team is led through an exercise designed to identify individual beliefs as a teacher and shared beliefs as a team?	R1, R2, R3 T1, T3, T6, T7, T10
2. How does that collaborative norming process influence previously held teacher perceptions of team performance and behavior?	R1, R2, R3 T2, T3, T6, T7
3. What tensions emerge in the group process and how do those tensions influence decisions to engage in debate around key ideas?	R1, R2, R3 T1, T4, T5
4. How does explicit instruction and awareness of the forming, storming, and norming stages of small group development inform those perceptions and practices?	R1 T6, T7, T8
5. What unintended consequences (e.g. teacher-to-teacher, teacher-to-student, and/or principal-to-teacher) or other themes emerged for teachers as a result of this activity/process?	R1, R2, R3 T4, T5, T9

*Data Source for Analysis

R1 = Reflection Steps 1 – 4 (Appendix I)

R2 = Reflection Steps 5 – 6 (Appendix M)

R3 = Reflection Steps 7 – 8 (Appendix N)

T = Teacher Interview Question (see Table 4.9)

Anfara et al. (2002) then describe a process for analyzing data through code mapping. Specifically, they state, “confronted with a mountain of impressions, documents, transcribed interviews, and field notes, the qualitative researcher faces the difficult task of making sense of what has been learned” (Anfara et al., 2002, p. 31). Similar to the first process, I have applied this concept to aspects of my dissertation research. Before reporting the results of the data analysis process, I have included a table which helps illustrate the data analysis process used to identify the study results and findings. Interview transcripts and reflection notes were analyzed individually to determine the surface concepts and codes. After reviewing all documents, the surface codes were reviewed for larger patterns. These pattern variables were then summarized

under each research question (see Table 4.11). The raw data provided surface codes which led to patterns, and eventually to the preliminary findings.

Table 4.11: Code Mapping – Three Iterations of Analysis

RQ #1 – Process Themes	RQ #2 – Process Influence on Perceptions	RQ #3 – Group Process Tensions	RQ #4 – Stages of Small Group Development	RQ #5 – Unintended Consequences
(THIRD ITERATION: APPLICATION TO DATA SET) Influence of a Collaborative Norming Process on Teacher Perceptions of Middle Level Team Structure and Development				
(SECOND ITERATION: PATTERN VARIABLES)				
1A. Individual Beliefs Matched Team Beliefs 1B. Both Process and Product had Value 1C. Framework as a Practical Tool 1D. Ownership in Creating Framework	2A. Similarities are Evident 2B. Perspective Affected Thinking 2C. Formalizing Values Provides Direction 2D. New Teams or Members Need Specific Attention	3A. Increased Tension in Mixed Groups 3B. Consolidation of Statements Caused the Most Tension 3C. Engaging in Debate Related to Relevance and Personal Attachment	4A. Tuckman's Framework is Relevant for Teams 4B. Group Structure Varied Based on Type of Group 4C. Team Composition Affects Stage of Development 4D. Improving Group Structure Would Benefit from Intentional Focus	5A. Explicit Values Should Assist Hiring 5B. Varied Perspectives Promote Shared Understandings 5C. Teaming Must Be Valued in Building Goals 5D. More Tension with Process vs. Product
(FIRST ITERATION: INITIAL CODES/SURFACE CONTENT ANALYSIS)				
1A. Individual Beliefs 1A. Shared Beliefs 1B. Framework Process 1B. Framework Product 1C. Clarity of Vision 1C. Goal Setting 1D. Ownership in Product 1D. Generic Template	2A. Similarity of Values 2A. Difference in Teams 2B. School Perspective 2B. Personal Reflection 2C. Vision Tool 2C. Explicit Values 2D. New Teams 2D. New Hires	3A. Heterogeneous Group 3A. Homogeneous Group 3B. Heterogeneous Consolidation 3B. Homogeneous Consolidation 3C. Debate - Relevance 3C. Debate – Strong Feelings	4A. Group Structure 4A. Task Activity 4B. Heterogeneous Group 4B. Homogeneous Group 4C. New Teams 4C. Veteran Teams 4D. Natural Development 4D. Intentional Development	5A. Current Vision 5A. New Hires 5B. Building Perspective 5B. Team Perspective 5B. Individual Perspective 5C. Teaming Literature 5C. Building Emphasis 5D. Process Tension 5D. Action Tension
Data	Data	Data	Data	Data

Research Question #1 – Emergent Themes from the Collaborative Norming Process

The primary purpose of this study was to understand the influence of a collaborative norming process on teacher perceptions of middle level team structure and development. Taken from the follow-up interviews and the written reflections of each participant, the following concepts emerged: individual beliefs of teachers and shared beliefs of teams were very similar across participants; movement from individual to shared beliefs and the refinement of ideas produced a clear, usable, and valued framework; high level of agreement between the shared framework and the individual teams (i.e., it reflects “my” team); framework completion will permit a clear understanding of expectations and lead to goal setting by teams; consolidation of ideas from individual statement into key concepts/categories was the most difficult step of the process across all four teams; and high value for the framework since it was completed by teachers for their site. Taken from the individual transcripts, the teachers articulated these findings through the following statements:

Well, I think the cards, starting out, made you think about the different aspects of teaming. And then, seeing input from a lot of different people and their perceptions of teaming really helped also...then trying to come up with just a few categories really made you think about the important areas of teaming that you need to address. (Denise)

...seeing what the other teams in the building were thinking...we got to start individually and then moved to our own teams...obviously a tremendous amount of overlap...and similarities. (Don)

I was surprised...moving into shocked (at the similarity in values). But, I was really amazed at how close everything jibed for everybody. I never in a million years would have thought that all four teams would have come to the same basic conclusions in such a short time, never. I would have thought this would have taken us years...I thought we were so way off base. (Jill)

I think it's (the framework) really going to make a difference in this school and I think it's going to make everybody respect all the other teams to start with...and I think too that whenever we have a disagreement, something arises on the team, I think we can use it as a reference and we can go back and say...(we agreed). (Jill)

I noticed that I've never really thought too much about how we as a team operate and how we do things and how we get things done...I have a better handle on how we do things and I think what makes us successful. (Tom)

I think that this (framework) says so much (about teaming). You could hand it to a board member or administrator who may be looking to disband us or whatever. I think it is a strong document to support what we do and why it works. (Ruth)

I don't think we were as far apart on the team concept as maybe I thought at the beginning...across the whole building...and with my own team...in

looking at the (thoughts of everybody) you are seeing that everyone has that thought here. (Cindy)

Just the whole teaming perception...it was interesting how things were stated just differently but we all pretty much have the same feelings on what our goals are, what our professional relationships and dynamics and the communication. Like we all pretty much I felt had the same ideas in mind. (Linda)

Some teams may use this (framework) as a structure because they're just that self-directed, self-guided type of team...but I also feel that there might be some teams that never pull this out again and look at it. (Linda)

I think obviously it was positive...we have something to work from now...it's just kind of brought us all together, not even as a team but as the four teams all together. (Laura)

The continual process of condensing and editing the framework allowed us to find possible changes in how it is put together. Healthy discussions allowed us to come to a consensus on many statements. I found that what I originally was satisfied with improved with others input...very useful. (Jill)

Good to share with others and work together to make changes across the board. This was a very good experience! The document will hopefully be used by the district for new hires who are on teams. (Margie)

I think it's a great idea...I like all of the constructs. My personal problem is that if we believe it enough to write it, we should actually do it! I have my doubts that it happens. (Don)

We're really refining our thoughts quite well and seem to be on the same page. I'm seeing more relevance at each meeting as to how we can utilize this process. (Ruth)

Today's activity was much easier. The group worked well together with acceptance of suggestions and open discussion. (Denise)

Finally...it really did turn into a framework. I think our team can benefit from a document like this. (Kim)

This was tedious...I felt like it was something like what I've done in graduate school...honing in the language and changing words. I didn't really enjoy this much. (Cindy)

I'm proud to see the level of professionalism among our teams. It was nice to see our colleagues work so well together...what a nice product. (Laura)

Research Question #2 – Influence of the Process on Initial Perceptions

With respect to the initial perceptions of the participants, the second research question was designed to determine the influence of teacher experiences in the collaborative norming process matched their initial perceptions. General findings for this

area include the following: degree of similarity in beliefs across individuals and teams was both surprising and validating/affirming for participants; creating individual belief statements caused a reflective process that stimulated thinking, focused on key ideas, and allowed the entire team community to view each other's values; professional development/literature reinforced the value/advantages of teaming when many felt the concept might be losing national support; framework will serve as a compass or decision screen to identify strengths and the need to include other practices; process illustrated the lack of explicit awareness of team philosophy at the school; and individual roles and the challenge of inducting new team members became clearly evident. Verbatim comments from the interview transcriptions and reflection notes include:

When I was on jury duty...I knew what I was thinking during the trial but (in this process and my work) I was wondering what the other people around me were thinking...this helped to see and hear their thinking.
(Linda)

After we put together the framework, all of the work that we did, I can see that we have work to do. There are a lot of things on the framework that we need to tighten up...if I am the team leader next year, that is definitely something that we're going to be working on for our team next year...a definite structure next year for our team. (Jill)

It actually gave me a little more background knowledge about and more understanding into the individual middle school student coming in...the

kids need support with social/emotional more than academics at first...it is secondary. (Linda)

It's interesting to see how the different team dynamics play out and how...some teams were a little different but we all seem to have the same end result...across the board. (Tom)

I think (the framework) shows the background that those of us who have been here a long time...the background that we were given about teaming...was a good basis that was established. We've managed to pass that along to others as they join the team over the years...and we are fortunate because this happened without someone saying this is how you do it...but now we have a process. (Ruth)

I think the structure of the building...a sixth grade hall...a seventh grade hall...we are so fragmented and separated...it is hard for all of us to buy into something and all get together and work on the same page...if we all decide that we can use this (framework) to pull us together then it can be done, but I am not 100% sure that it will. (Tom)

I think for the most part, we do this (framework). I think that especially as new people come on to teams and the dynamics of the teams change, I think this would be very helpful as a tool to get everybody on the same page within the team. (Denise)

Research Question #3 – Tensions Related to the Collaborative Norming Process

Since Tuckman's (2001) framework for the stages of small group development was utilized as a lens for viewing teams, the next research question related to his reference to storming phase in group development. Specifically, the collaborative norming process was designed to move from the individual beliefs of each teacher to the shared beliefs across all four teams of teachers. Given this design strategy, I wanted to record the perceptions of teachers related to tension or dissonance during the activity. Based on the interview transcriptions and written reflections, the following themes emerged: increased tension was felt/observed in the heterogeneous group activities versus the homogeneous group; moving from four team-based boards to one school-wide board was the biggest challenge; and decisions to engage in debate over ideas was based on personal relevance or strong feelings. Several verbatim quotes summarize these findings:

It was a long arduous process...not as easy as when it was done in teams...people's suggestions were ignored and I felt the quieter people's voice was not heard for choosing titles. I will say the categories seemed to work well because each statement was easily placed. (Janet)

We started with what we thought were good categories and decided...not necessarily by consensus...on a broad start. The group as a whole worked well together but there was a formality not evident within the team. (Leslie)

Once we decided to get moving instead of arguing, it worked out. No one wanted to take charge. We were talking about very minute points. (Rob)

The prioritization was not an issue...problem again reverted back to naming of the categories. I think it was an important step in the process...it helped to better define what our ultimate focus should be.

(Janet)

Research Question #4 – Influence of Tuckman's Stages of Group Development

In the initial interviews with the teachers and principals, it was evident that no one had received formal exposure to the stages of small group development and/or group dynamics. As discussed in the methodology chapter, I exposed the teachers to Tuckman's (2001) framework and referred to that model throughout the norming activities. From the social constructivist perspective, I was interested in learning whether explicit instruction in those stages would influence teacher perceptions of group structure and task activity within the interdepartmental teams. Several preliminary findings emerged from the transcripts and written reflections including: Tuckman's framework is an appropriate model for describing the group structure and task activity components of interdepartmental teams; the norming process reinforced the fact that team members do not usually work together outside of their own team and/or department; awareness of the stages of group development is more important for new teams than veteran teams; and it provides a structure for improving interpersonal dynamics versus the lack of focus or natural development that occurs with norming. Several comments that describe this concept include:

I think that it (Tuckman) could be used well in (teams). And it's interesting because you look at performing and where it comes in all of

this that there are three steps before you're performing well together as a team. (Denise)

Yes...with the testing and obviously when you are new to the team...you are trying to feel each other out...sometimes it takes years to even get acclimated to being into the team...and the storming goes in and out...sometimes you need to be an individual. (Jill)

I think it (Tuckman's model) is pretty good...I think we get stuck in stages for awhile and especially when somebody new comes into the stage, then you have to go back to another stage...it may not take you as long to move through the steps because...most people are established and you've got one new duck in the pond. (Mindy)

Knowing that this came from a group of teachers in the building, I think it does give it more meaning...it is more well received by the staff knowing that it is just not someone copying something out of an educational journal somewhere...it is now our vision. (Tom)

I was really smiling when I read this the first time...the disengagement...the anxiety about separation because we've been through that. I don't know if other people felt it that way but I felt an anxiety when one of our members was gone for actually a two year period of time...what are we going to do...how is this going to work without that

person...it validated my feelings (adjourning stage of Tuckman's framework). (Ruth)

Teaming...is like any relationship such as families...and I think of a team like a family. It's a small group of people working together...it addresses the kind of interpersonal workings of a team whether it is in a middle school or any workplace. (Laura)

Research Questions #5 – Unintended Consequences from the Collaborative Process

Given the nature of the collaborative norming process activities and the development of an exemplary teaming framework for this middle school, it was possible that the dialogue could produce different reactions. This particular research question was developed to assess unintended consequences. The preliminary findings for this question include: High perceived value in using the framework for matching candidates with future positions; positive benefits from collaborating across all four teams and the requirement to work together; revitalized waning emphasis (perceived) on teams and teaming; administrators should communicate/collaborate with teams to determine the best use of the framework for improvement planning; and little tension was reported with respect to the framework. Several examples were taken from the verbatim interview transcriptions and the written reflection notes:

I think that even though they (eighth grade) don't team, they see what we do in sixth and seventh grade and these are where these kids are coming from. These are the expectations we have for them. And, it's not just

suddenly like, OK, you're done with teaming so you don't have to do any of this anymore. (Laura)

I was kind of disappointed that I didn't get to spend more time with people from the other teams to see how they are doing some of these things...in general...we have a lot of expertise in different areas of the building and I don't think we always draw on what other people are doing, be it an individual or a team and do internal collegial sharing. (Denise)

We spend so much time on the struggling student but I think we sometimes forget about those kids that do so well all year long...they deserve more time and recognition. (Don)

Research Findings

In their final dissertation example, Anfara et al. (2002) illustrate a tool/matrix designed to show data triangulation and initially describe the trustworthiness of the findings. By demonstrating the complexity of variables and interactions, the researcher can assess the data critically and show transparency in the analysis process. I have attempted to apply this matrix to my fieldwork project in Table 4.12.

Table 4.12: Matrix of Findings and Sources for Data Triangulation

Major Findings	Data Sources		
	<u>I</u>	<u>R</u>	<u>O</u>
<u>Category 1: Process Themes Based on the Norming Activity</u>			
• Individual beliefs of teachers and shared beliefs of teams were very similar across participants.	X	X	X
• Movement from individual to shared beliefs and the refinement of ideas produced a clear, usable, and valued framework.	X	X	X
• High level of agreement between the shared framework and the individual teams (i.e., it reflects “my” team).	X	X	
• Framework completion will permit a clear understanding of expectations and lead to goal setting by teams.	X	X	
• Consolidation of ideas from individual statement into key concepts/categories was most difficult step of the process across all four teams.	X	X	X
• High value for the framework since it was completed by teachers for their site.	X	X	X
<u>Category 2: Influence of the Process on Prior Perceptions</u>			
• Degree of similarity in beliefs across individuals and teams was both surprising and validating/affirming for participants.	X	X	
• Creating individual belief statements caused a reflective process that stimulated thinking, focused on key ideas, and allowed the entire team community to view each other’s values.	X	X	
• Professional development/literature reinforced the value/advantages of teaming when many felt the concept might be losing national support.	X	X	
• Framework will serve as a compass or decision screen to identify strengths and the need to include other practices.	X		
• Process illustrated the lack of explicit awareness of team philosophy at the school.		X	X
• Individual roles and the challenge of inducting new team members became clearly evident.	X	X	
<u>Category 3: Emerging Tensions from the Process</u>			
• Increased tension was felt/observed in the heterogeneous group activities versus the homogeneous group.	X	X	X
• Moving from four team-based boards to one school-wide board was the biggest challenge.	X	X	X
• Decisions to engage in debate over ideas was based on personal relevance or strong feelings.	X		

Note: I = Interview R = Reflection Notes O = Observation

Table 4.12: Matrix of Findings and Sources for Data Triangulation (continued)

Major Findings	Data Sources		
	<u>I</u>	<u>R</u>	<u>O</u>
<u>Category 4: Stages of Small Group Development</u>			
• Tuckman's framework is an appropriate model for describing the group structure and task activity components of interdepartmental teams.	X		X
• Norming process reinforced the fact that team members do not usually work together outside of their own team and/or department.	X	X	X
• Awareness of the stages of group development are more important for new teams than veteran teams.	X	X	
• Provides a structure for improving interpersonal dynamics versus the lack of focus or natural development that occurs with norming.	X		X
<u>Category 5: Unintended Consequences of the Process</u>			
• High perceived value in using the framework for matching candidates with future positions.	X	X	X
• Positive benefits from collaborating across all four teams and the requirement to work together.	X	X	X
• Revitalized waning emphasis (perceived) on teams and teaming.	X	X	X
• Administrators should communicate/collaborate with teams to determine the best use of the framework for improvement planning.	X		
• Little tension was reported with respect to the framework.	X	X	

Note: I = Interview R = Reflection Notes O = Observation

Conclusion

The document/artifact analysis and initial interviews with teachers and principals were used to establish the existing beliefs and context for this study. Described in the beginning of this chapter, these two data sources allowed me to fully describe the participants, the historic role of teaming at this middle school, and the context for the study (e.g., geographic lay-out, bell schedule, team meeting processes, and initial perceptions of teachers and principals). Given the broad study purpose of determining the influence of the collaborative norming processes on teacher perceptions of middle level

team structure and development, the initial data collection served as the basis for that comparison.

Based on the selection of participatory action research as the research methodology and the social-constructivist nature of small group work, the results of the initial interviews and document/artifact analysis informed the content of the group meetings. For example, I provided additional background training and literature on middle level philosophy and teaming since the teachers had not received this information since the early 1990's. The reaction to group tasks (steps 1 – 8) within the study processes and my active role as facilitator permitted me the opportunity to make decisions or lead an explicit discussion about small group processes within the group structure and/or task activity realms (Tuckman, 2001).

The final component of the data analysis relates to the written reflections provided by participants at each step of the norming process and the individual interviews conducted at the end of the study. After determining appropriate coverage of the research questions (see Table 4.10), I conducted a surface content analysis to identify initial codes. After reviewing the surface codes, I identified pattern variables within the data that could help frame the individual thoughts and reactions. A review of the pattern variables was then used to determine the preliminary findings (see Table 4.11). An exposure to the final interview questions provides the background for analyzing the coverage of research questions (see Table 4.9). In the final Chapter, I will discuss these findings within the context of the extant literature in the field.

CHAPTER V

DISCUSSION

Introduction

The teaming concept has served as a cornerstone of middle level philosophy and education since the middle school movement began in the 1960s. Described as a signature practice in the middle school movement, teaming provides an organizational framework that allows schools to design and deliver effective learning to every student (Crow & Pounder, 2000; Hackmann, Petzko, Valentine, Clark, Nori, & Lucas, 2002). By studying the phenomenon of individual teachers working to establish shared beliefs within their teams and school, the participants and I gained valuable insight into the transformation of these small groups. The dialogue and reflection inherent in this type of collaborative norming process proved to be as valuable as the product – a site specific framework for exemplary teams.

In this Chapter, I will share a brief discussion of the research methodology selected for this study and a review of the initial objectives outlined in Chapter 1. Prior to the discussion of results, I will describe several limitations of the study and share my perspective/stance as the researcher. My analysis of the research findings will then be organized within the broad themes of professional development, small group dynamics, collaborative norming process, and the teaming framework. Connected to the information described in the literature review, I will include concepts from social constructivist learning and small group development. The implications of this study for future research and practice will then be explored.

Research Methodology

In the Participatory Action Research (PAR) methodology, I worked directly and collaboratively with the study participants as a facilitator for learning, growth, and change. My role reflected the description of PAR as being collaborative and inclusive of all major stakeholders with the researcher acting as a facilitator in the change process (Glesne, 2006; Kemmis & McTaggart, 2000). The constructivist nature of this methodology aligned perfectly with my study of middle level teams in a single setting. It was a form of insider research where participants had two different perspectives or roles: pseudo-researcher (outside-in) and participant (member of the social setting). “Participatory action research offers an opportunity to create forums in which people can join one another as co-participants in the struggle to re-make the practices in which they interact” (Kemmis & McTaggart, 2000, p. 595). The selection of PAR as the means for conducting the research resonated strongly with my philosophical, ontological, and epistemological perspective.

The importance of mutual trust and commitment by the participants was critical for PAR (Hutzel, 2007). The faculty and staff at Triumph Middle School and key leaders in the federation and central office were incredibly flexible and supportive of this research. From the initial consent procedures and interviews, the participants demonstrated a willingness to use candor in our interactions. During the design phase of this research, I had planned to involve and train an outside person to facilitate some of the small group processes. I changed that decision based entirely on the level of trust and rapport developed with the teacher participants. Beginning with the initial interview, I had begun to establish my professional credibility and the authentic nature of my

intentions also became clearer to the participants. I did not want to risk a change in the culture and social interaction with the introduction of an outside person. Since facilitating the group made it more difficult to take observation notes, I utilized reflection sheets to capture the thinking of the group and its individual members (see Appendix I, M, and N). According to Gosin, Dustman, and Harthun (2003), challenges of the collaborative nature of PAR include: lack of trust/respect among participants; conflicts over perspectives and processes; degree of community representation; and disputes over the equity of power relations among academics and participants. My actions as an educational leader and researcher helped to resolve some of these concerns.

Limitations and Researcher Perspective

In my effort to be transparent as a qualitative researcher, I have placed the limitations section before continuing a discussion of the study results. As a middle level educator, scholar, and researcher, I am a strong proponent of the middle level concept espoused by the National Middle School Association (1995) and the National Association of Secondary School Principals (2006). Prior to my review of literature related to teaming, I had personally witnessed the positive impact of effective teams on the social, emotional, intellectual, and moral development of adolescents. After reviewing literature from inside and outside the field of education, my beliefs about the effectiveness and benefits of teaming – for students and teachers – were reinforced. By addressing my stance in a forthright and proactive manner, I hope to increase the trustworthiness and credibility of my analysis of this study and my discussion of the results.

In my research, it was critical to explore the potential limitations of a methodological design choice as one means of enhancing the trustworthiness of the

findings. Noted in Glesne (2006) and Anfara et al. (2002), the strategies of prolonged engagement, member checks, triangulation, thick description, purposive sampling, and reflexivity are important in this type of research. I attempted to address each of these areas within the study design, but I especially needed to consider prolonged engagement as a study limitation. Despite the fact that the data collection procedures spanned a time period of three months, I was not immersed in the natural setting of the school – as an observer – on a day-to-day basis. As a result, I was not able to include direct observation notes of team functions and interactions through their authentic activities. My descriptions of team interactions were based on the triangulation of data obtained through interviews, artifacts/documents, written reflection sheets, and observations. In addition, this study focused on the influence of the professional development and collaborative norming process on teacher perceptions of middle level team structure and development. Since the data collection ended with the creation of a framework for exemplary teaming, it may have proved beneficial to explore the long-term impact of the framework on practices within the building – an idea explored later in this Chapter.

Given the social constructivist and site-based nature of this study, it would have been ideal to have 100% participation in this study. However, 16 of the 20 possible teachers in the building did agree to participate in the study – with two completely intact five person teams being involved. The perspective and dynamics of the smaller teams – where three of five teachers participated in two of the teams – may have changed with full participation. However, I was extremely pleased with the 80% teacher participation rate and 100% administrative participation rate. I later learned that two of the teachers who did not participate had planned to retire at the end of the year. Based on IRB

procedures, the teachers did not need to provide a reason for their decision not to participate.

Finally, the school district superintendent, federation president, and principal had agreed to provide a local incentive for teacher participation. With no prompting from me, they determined that teachers willing to participate in the study would be excused from an in-service training day scheduled for the end of the school year. That incentive proved valuable when asking for the time commitment of the study. I could not have been more impressed with the professionalism, flexibility, and student-centered values of the people that I worked with in this organization.

Professional Development on Teaming

In a nationwide study of ninety-nine schools by Steffes and Valentine, 80 percent of teachers indicated that they received only moderate amounts of or no in-service training for serving on teams (Erb, 2000). Getting a team to function coherently and energetically requires leaders who have a sound understanding of the middle school concept, of how to create and maintain healthy organizations, and how to energize the people who have been recruited to do the work expected of the schools (Erb, 2006). The professional development session conducted as one of the initial steps in this research served as a critical foundation for the rest of the study. In this section, I will discuss the history of this concept at Triumph Middle School, the impact of that history on participants, and future implications at the building.

At Triumph Middle School, the transition to teams occurred in 1991/1992. An outside consultant had been secured to lead the transition from a junior high school model to a teaming environment. In the initial year of the transition, teaming was only

introduced into the sixth grade. In the second year, teaming extended to seventh grade. The eighth grade has retained a departmentalized structure. My initial interviews with teacher participants clearly indicated that no formal training on team structure and purpose had been held in the previous sixteen years. Given the natural turnover in staff, only six teachers remained from the initial change. Direct quotes shared in the previous Chapter describe the lack of understanding and background in middle level philosophy and teaming at this school.

I was thinking about the fact that we really haven't had much in service on updating teaming perspectives or information for well-over ten years. I appreciated the information provided. (Denise)

I actually think the first meeting got me thinking about a lot of things...the middle school concept, the role of a middle school teacher, the team, and middle school as a transition. (Cindy)

The teachers also expressed concern with the value placed on teaming by key leaders and administrators in the organization. Given the introductory comments from Erb (2000; 2006), the national problem had also surfaced in this particular school.

In reaction to these initial findings, I increased the professional development component of my methodology to include key concepts from *This We Believe*, *Turning Points 2000*, and *Breaking Ranks in the Middle* (see Appendix G). In addition, I provided excerpts from the literature review of this study related to teams and small groups. This component was added for two reasons: (a) to increase the awareness and training of teachers prior to the individual card activity (Step 1) of the norming process, and

(b) to create a shared understanding and operational definitions for the upcoming activities. This professional development reinforced the value and advantages of teaming when many of the teachers felt the concept was losing support. The concern about teaming had been shared in the initial interviews with both teachers and administrators. All participants valued the concept – they also agreed that it had not been a recent value given district-wide emphasis on the other concepts.

Teaming has taken a back seat to other things...differentiation...
co-teaching...we even have team teachers who have to teach a section of
another grade level...so they don't have the tutorial time...it makes it
harder to meet. (Jill)

As an unexpected side benefit to this work, I was able to earn professional trust and respect as an expert in this area through the professional development sessions.

The lack of explicit training and knowledge related to interdepartmental teaming for teachers contributed to their lack of confidence in clearly defining the purpose and functions of interdepartmental teams. The teachers were confident in their professional knowledge and ability to educate and nurture students, but they were less confident in whether their team was doing the right things.

I realize I know very little about what the philosophy and reasoning for
teaming in Triumph are. I feel like the entire team has to buy into the ideas
in order for it to be effective. (Linda)

Though there sometimes seems to be waning of the teaming concept, it
actually remains a strong method used in many middle schools. (Don)

One teacher shared the following,

...to be honest with you, I don't think I've ever been told or trained about the goals of teaming...it begs the question 'how is this supposed to be used?' (Laura)

In addition to the focus of teams, many of the teachers expressed a concern that “teaming doesn't seem to be valued as much anymore.” This feeling is supported in the literature with the following statement: “schools often fail to follow through with ongoing training and consultation, another feature of organizational context, to help teams through stages necessary to become fully functioning” (Fauske & Schelble, 2002 as cited in Conley et al., 2004, p. 670).

The professional development sessions were conducted separately with each team (i.e., Team 6A, Team 6B, Team 7A, and Team 7B). Exposure to Tuckman's (2001) stages for small group development created a shared dialogue and understanding with the participants. Examples were used to describe each stage of that process and a specific emphasis was placed on the importance of the group structure realm of the model (see Table 5.1). In conjunction with the team dysfunctions described by Lencioni (2005), I provided additional empirical support for this important aspect of teams. Commonly identified characteristics of successful groups include: open communication, flexibility, commitment to group goals, mutual supportiveness, effective conflict management, discussion of strategy, and the evaluation of individual inputs into group decisions (Levine & Moreland, 1990; Park et al., 2005; Shaw et al., 1998). I shared that findings also suggest that healthy interpersonal processes have more direct and indirect effects on teaching/learning processes than do organizational context or design features. Teachers

who perceive that their team is highly participatory and that team members are comfortable sharing ideas report favorable teaming outcomes (Crow & Pounder, 2000).

Table 5.1: Developmental Sequence in Small Groups (Tuckman, 2001).

	Group Structure The pattern of interpersonal relationships and interactions of members toward each other.	Task Activity The content of interaction as related to the task at hand.
Forming: Orientation, testing, and dependence	Testing and dependence	Orientation to the task
Storming: Resistance to group influence and task requirements	Intra-group conflict	Emotional response to task demands
Norming: Openness to other group members	In-group feeling and cohesiveness develop; new standards evolve and new roles are adopted	Open exchange of relevant interpretations; intimate, personal opinions are expressed
Performing: Constructive action	Roles become flexible and functional; structural issues have been resolved; structure can support task performance	Interpersonal structure becomes the tool of task activities; group energy is channeled into the task; solutions can emerge
Adjourning: Disengagement	Anxiety about separation and termination;	Self-evaluation

In the research activities at Triumph Middle School, I shared my belief in these concepts and cited examples of the vision it could create in schools. For example,

Schools – more than any other kinds of organization - should be learning organizations. They should be places where participants continually expand their capacities to create and achieve, where novel patterns of thinking are encouraged, where collective aspirations are nurtured, where participants learn how to learn

together, and where the organization expands its capacity for innovation and problem solving. (Senge in Hoy & Miskel, 2005, p. 33)

Teams that are stunted in their sequential development are usually dealing with interpersonal issues versus task understanding (Weller, 1995). We discussed several of the common problems described in the literature, such as: lack of cohesion caused by ‘taking sides’; false consensus among team members when silence is taken for consent; a leaderless team with poorly defined goals; indifference to the group or lack of trust; harmony versus high standards as the goal; and open hostility based on interpersonal conflicts (Weller, 1995).

As the study progressed, I continued to address the feeling that teaming may not be valued. The support for my research study – from a district and school level – was given by the administrators. As further evidence of that support, the building principals were not permitted to directly participate in the study processes. The voluntary informed consent of the teachers was an important factor in protecting the rights of participants. When I shared that the principals valued the concept enough to allow an outside researcher to enter the building and work with the teachers – on the basis of one forty-five minute overview meeting – they began to acknowledge the administrative support of the teaming concept. Permission to approach teachers was an expression of value. The teachers continually expressed their appreciation for the content covered in the professional development sessions. In the next section, I discuss the research findings related to small group development and the various stages and realms of that concept (Tuckman, 2001).

Small Group Development

In addition to the lack of team-based professional development, teachers and principals reported two important concepts related to small group dynamics. First, none of the teachers indicated that they had ever received training in small group dynamics or processes. Perhaps related to that finding, all teachers expressed that improvements in the group structure or interpersonal dynamics were the result of time and/or informal acts. With respect to the forming, storming, and norming stages of small group development, the consensus of teacher opinion could be described with the following statement, “I think it’s through time...as you get to know each other and as we get comfortable with how each other teaches” (Mindy). In terms of group decision making processes, a theme emerged that teachers just talk about items to see if everyone is “o.k.” with it.

Middle school teams are small groups of people who experience similar developmental stages in their groups as work teams in other professions (Crow & Pounder, 2000). In an important research finding, every teacher participant and both principals felt that Tuckman’s (2001) stages and realms of small group development could be appropriately applied to interdepartmental teams.

I think that it (Tuckman) could be used well in (teams). And it’s interesting because you look at performing and where it comes in all of this that there are three steps before you’re performing well together as a team. (Denise)

In the initial interviews, no one reported the intentional or explicit attempt to improve the group structure component of Tuckman’s (2001) small group model. By studying this concept, it “allowed time to reflect upon a process that just happens without much

thought...dynamics within the groups and comparing that to the classroom.” (Tom)

Related to this belief, the teachers believed that the model held the greatest value when considering the inclusion of a new team member. Teachers also understood that the inclusion of a new member – even with four remaining team members – means that it is necessary to reform the individuals within the teams.

...with the testing and obviously when you are new to the team...you are trying to feel each other out...sometimes it takes years to even get acclimated to being into the team...and the storming goes in and out...sometimes you need to be an individual. (Jill)

From their study on teacher talk, experienced team discussion and activities change from attention to students and policy to a discussion of students, instruction, and curriculum (Crow & Pounder, 2000; Felnar et al., 1997; Shaw, 1993; Erb, 2000). This finding is important as it indicates that experience (or time together) is critical for developmental progress. New teams who are learning how to work together spend more time discussing logistics and housekeeping.

I think it (Tuckman’s model) is pretty good...I think we get stuck in stages for awhile and especially when somebody new comes into the stage, then you have to go back to another stage...it may not take you as long to move through the steps because...most people are established and you’ve got one new duck in the pond. (Mindy)

By overwhelming majority, participants agreed that a very informal process was currently used to rebuild the team and establish procedures and routines. They expressed interest in addressing the group structure components in a more intentional manner.

Already contained in the research design, I gave explicit attention to activities and processes (e.g., trust activity) that could be utilized by the teams for their own development (see Appendix G). The selection of PAR as the research methodology in this study was instrumental in reacting to the issues of professional development related to teams and the lack of small group training. Significant to my study, Crow and Pounder (2000) felt that interpersonal processes needed the most attention in their analysis of team performance. According to Hackmann et al. (2002), teams cease to function effectively when teachers are incompatible which makes teacher placement decisions a critical responsibility (see also Hare & Hare, 2002). As mentioned, improvement efforts for middle school teams have historically rested on the implementation of structural characteristics of effective teams with insufficient attention given to the group structure realm of team development (Hackmann et al., 2002; Tuckman, 2001).

It was important to note that increased tension was felt by teachers in the heterogeneous group activities versus the homogeneous group work. The initial mixed task of taking four team-developed frameworks and combining them into one rough framework that represented the beliefs of all teachers and teams was challenging for participants. I observed a different pattern of interaction and discussion in that setting. The teachers were less comfortable – as evidenced by their reflections and interviews – and also interacted with each other in a more formal manner. As a component of the research design, we took the time to discuss that feeling while the group was working together. In contrast, the homogeneous sessions were often marked by jokes and lighthearted comments.

We started with what we thought were good categories and decided...not necessarily by consensus...on a broad start. The group as a whole worked well together but there was a formality not evident within the team.

(Leslie)

I think we were more reluctant to step on anyone's toes about how we should group them. Once we decided on major categories it was easier.

(Tom)

It was a long arduous process...not as easy as when it was done in teams...people's suggestions were ignored and I felt the quieter people's voice was not heard for choosing titles. I will say the categories seemed to work well because each statement was easily placed. (Janet)

The norming process reinforced the fact that members from different teams did not usually work with each other. While they also acknowledged that there were positive benefits from collaborating across all four teams, the teachers felt the change in environment and interaction that is evident at the forming and storming stages of Tuckman's (2001) model. Despite many years working in the same building, this activity was the first time that some team members had a chance to complete a task together. This type of collaboration is critical for the development and implementation of a shared vision. In the follow-up interviews, the broad theme emerged that personal decisions to engage in debate over ideas were based on relevance or strong feelings.

In the next section of this Chapter, I will describe the important findings related to the collaborative norming process. Middle schools organized around interdisciplinary teams are now the most common type of school serving young adolescents (Erb, 1997; Hackmann et al., 2002; Jackson & Davis, 2000; NMSA, 2006). While Tuckman's (2001) model will continue to serve as an underlying concept in this study, the findings will focus specifically on the norming process and the framework produced at the end of the study.

Collaborative Norming Process

When conducting the preliminary interviews with teacher and administrative participants, each person described an emphasis on meeting the needs of students as the major goal of teams. However, the participants were not able to define or articulate a shared vision for teaming at the school. An analysis of interview transcripts and written reflection notes suggested that the shared vision was implied versus explicit. This finding was supported with the lack of professional development or focus directly given to the teaming concept in recent years at the school. Since every school has its unique, specific constraints and structures, the social constructivist and site-based approach to developing a shared vision for teaming was ideal.

Group norming is a non-linear process that invariably results in change; with the understanding that substantive change usually creates discomfort and dissonance as people are asked to act in new ways (DuFour, 2007; DuFour & Eaker, 1998; Hackmann et al., 2002; Lencioni, 2005; NASSP, 2006; Weller, 1995). Given the broad application of teaming concepts and individual differences in teacher opinion of exemplary team characteristics, it is important for practitioners to engage in practical discussion about the

role and functions of high performing teams (Hackmann et al., 2002; Park, S., Henkin, A. B., & Egley, R., 2005; Pounder, 1999). For meaningful educational reform, the purpose of these conversations is to improve team effectiveness as a vehicle for improving student learning and achievement.

As a critical finding from the initial steps in the collaborative norming process, participants were surprised at the degree of similarity and overlap in the individual beliefs of teachers and the shared beliefs of teams across the building. By creating individual belief statements and displaying that thinking as an initial step in the process, it stimulated thinking, focused on key ideas, and allowed the entire team community to view each other's values.

The continual process of condensing and editing the framework allowed us to find possible changes in how it is put together. Healthy discussions allowed us to come to a consensus on many statements. I found that what I originally was satisfied with improved with others input...very useful.

(Jill)

I thought the group dynamics were productive and effective after some initial combativeness, but that's what makes teaming dynamics so interesting. (Fred)

By placing the beliefs in writing, it allowed the conversation and work to move forward. Without the structured process and ability to physically move and combine the thoughts, it would have been easy to get mired in the broader concepts.

At two points in the collaborative norming process, the teachers noticed increased levels of difficulty. In their homogeneous teams, this difficulty occurred during the consolidation of items and categories. After completing the nominal grouping technique and clarifying the groups and headings, the teachers needed to condense and prioritize the comments. With the higher level of focus required to complete the task and disagreements in consolidating the items, I noticed an increase in debate among the team members. In their written reflection notes, the teachers described feelings of fatigue with this step. They also described it as an arduous process that was very detailed. By interacting with each statement though, the teachers became much more familiar with the thinking of all participants.

A similar challenge occurred in the first heterogeneous group meeting. The participants needed to move from four separate team boards to one overarching building-based board (see Appendix L). Teamwork was a significant predictor of teacher team commitment. The results also suggest the importance of trust as a fundamental element in the effective teams (Tschannen-Moran, 2001). Since this group of individuals – representing all four teams – had never worked together before, there was a noticeable change in environment. This change was evident from the written reflections, follow-up interviews, and my observations.

We're really refining our thoughts quite well and seem to be on the same page. I'm seeing more relevance at each meeting as to how we can utilize this process. (Ruth)

We started with what we thought were good categories and decided...not necessarily by consensus...on a broad start. The group as a whole worked

well together but there was a formality not evident within the team.

(Leslie)

In Tuckman's (2001) framework, this resistance to task is clearly identified in the forming and storming stages of small group development.

Vision for Teaming

In *Turning Points 2000*, the development of teams is described as an evolutionary process. The importance of school leadership in providing sustained focus on teaming practices is critical for professional growth and substantive, lasting improvement (DuFour & Eaker, 1998). One of the unintended outcomes of this study was that teachers at Triumph Middle School believed that the building administrators should communicate and collaborate with teams to determine the best use of the framework for continuous improvement. If schools are to be effective learning organizations, they must find ways to create structures that continuously support teaching and learning; enhance organizational flexibility; develop positive, collaborative organizational cultures and climates; and attract individuals who are secure, confident, and open to change (DuFour, 2007; DuFour & Eaker, 1998; NASSP, 2006). Professional learning communities focus on environments where teachers are organized into collaborative teams that focus their collective efforts on critical questions such as: essential learning outcomes, consistent quality measures for student work, common assessments, data-driven decision-making, continuous improvement process, building shared knowledge among team members, and using collaborative team time to focus on these issues (DuFour, 2007).

Movement from individual to shared beliefs and the refinement of ideas produced a clear, usable, and valued framework. There was a high level of agreement between the

shared framework and the individual teams. In other words, individual teachers from all four teams felt the final framework represented their team (see Figure 5.1). The framework now permitted a clear understanding of expectations and may lead to goal setting activities for teachers and teams. The framework can serve as a compass or decision screen to identify strengths and needs. Because the product was created by teachers at Triumph Middle School, it held higher value for the teachers. There was a high level of agreement between the shared framework and “my” team. As a consensus-driven document, the final productive was reflective of the participants.

According to Hackmann et al. (2002), teams cease to function effectively when teachers are incompatible which makes teacher placement decisions a critical responsibility (see also Hare & Hare, 2002). The participants in this study felt strongly that the framework for teaming would assist the candidate recruitment and selection process. By identifying individuals that more closely match the values and goals of teams at Triumph Middle School, it would be possible to increase aspects of the group structure realm in Tuckman’s (2001) framework. The framework would also be used to induct new members into the team. In this way, teams could be more intentional in their pursuit of the forming, storming, norming, and performing stages of small group development (Tuckman, 2001). Real change in school organizations is actually about changes in the people who work in those schools, not the practices that teachers can be forced to follow (Crow & Pounder, 2000; Erb, 2006; Pounder, 1999).

Figure 5.1: Triumph Middle School Framework for Exemplary Teaming

EXEMPLARY TEAMING FRAMEWORK Triumph Middle School			
INSTRUCTIONAL STRATEGIES	STUDENT CENTERED	PROFESSIONAL DYNAMICS	COMMUNICATION
<ul style="list-style-type: none"> Address individual learning styles, academic strengths and weaknesses through differentiation of content, process, product, and learning environment while remaining cognizant of best practices; Establish common organizational strategies for students and communicate them consistently throughout the subject areas; Incorporate interdisciplinary activities to support curriculum and transference of knowledge and skills across subject areas; Coordinate among team teachers the scheduling of student assignments and assessments; Establish common classroom management practices to create a safe and productive learning environment; 	<ul style="list-style-type: none"> Hold team meetings on a consistent basis to monitor student academic progress as well as student's social and emotional well-being; Establish consistent team expectations for students that foster responsibility, independence, and academic growth; Foster a team environment that allows continuous development of positive rapport and mutual respect with students; Establish rigorous learning expectations for all students including remediation for struggling learners and enrichment for advanced learners; Develop a unified team identity that creates a sense of pride, spirit, and belonging in team teachers and students; 	<ul style="list-style-type: none"> Develop team expectations/rules to be enforced, published and communicated to students and parents; Identify individual roles and responsibilities within the team and create an atmosphere of mutual trust and respect; Share best practices for growth and utilization of team members professional strengths; Create a team environment that allows for flexibility while supporting the curricula of other team members; Foster a cooperative relationship among administration, co-teachers and support personnel; 	<ul style="list-style-type: none"> Promote healthy relationships through regular communication with students, parents, administrators, and team teachers about student accomplishments, team activities, and student concerns; Share pertinent information in a timely manner to facilitate more efficient communication; Use current technology to communicate with all involved individuals; Participate in activities that support the school and community;

Implications for Future Research

Levine and Moreland (1990) describe the diffusion of small group research since the findings from that work are presented across so many different fields and/or disciplines. Since a variety of groups or teams exist, it seems relevant for those groups/individuals to build a shared understanding/vision as an important step for achieving group success. While appropriate in all settings, I will begin with a focus on educational environments and middle schools in particular. The major implications for future research described in this section include: longitudinal impact; norming across multiple settings; role and participation of a new hire onto a team; use of the norming process in other educational groups or departments; and further analysis of factors related to group structure.

Middle schools organized around interdisciplinary teams are now the most common type of school serving young adolescents (Erb, 1997; Hackmann et al., 2002; Jackson & Davis, 2000; NMSA, 2006). In reflecting on my work, the first implication for future research of my study would be to extend my study to assess longitudinal impact. In this way, I could determine the influence of the site-based framework on the behaviors, attitudes, and practices of the teams. Viewed as a task with Tuckman's (2001) framework, each team would go through the stages of development as they implement the value statements in the framework. If this process resulted in change, the tensions associated with new behaviors, attitudes, and/or beliefs could occur. The primary responsibilities of teams include the development and implementation of interdisciplinary curriculum, teaching strategies, coordinated interventions for students, and joint communication with parents (Conley et al., 2004).

In a larger school district or county-type system, it is possible that several middle schools exist within the same system. A similar process could be utilized to set operational or team norms across that system. By operating in multiple settings, additional variables could be studied or added to the process. Given the increased scope of this type of work and the potential for historic differences in culture and/or community at different schools, the social constructivist nature of the activities would need extra consideration.

Teams or small groups can also be considered as the communities of practice described by Wenger (1998). Specifically, the concept of legitimate peripheral participation described in the literature review of this dissertation could be analyzed with middle school teams. The candidate selection process – hiring to match the values of the members – could be studied. In addition, the movement from peripheral to central participation as the newly hired person joins the team could also prove valuable in helping to inform the induction process and needs. Since this finding emerged strongly from this particular study, a more focused assessment of this important concept could help school leaders increase their effectiveness in managing the development of teams and groups.

Finally, the collaborative norming process itself could be applied to any team and/or small group. Since the concepts related to movement from individual beliefs to a shared framework for success, these steps could be used for departments, teams, or any other small groups. For example, a physical education department in a school building could participate in a similar norming process. By clearly establishing the goals and

beliefs of the program, the coordination and articulation of curriculum and instruction could be improved.

As small groups, team members must consider the group structure and task activity components of the small group development model. In the review of literature and during the fieldwork, the concepts of trust and leadership arose as two important factors in group development. The role of leadership, such as emergent versus assigned roles/titles, could help illuminate the challenges of team performance. From a similar standpoint, the role of trust in middle level teams could be further studied to help inform efforts to improve group structure and development.

Implications for Practice

In *Breaking Ranks in the Middle*, the first core area describes collaborative leadership and professional learning communities with the specific statement that “teachers and teacher teams will provide the leadership essential to the success of reform and will collaborate with others in the educational community to redefine the role of the teacher and identify sources of support for that redefined role” (NASSP, 2006, p. 23). Studies have also demonstrated teaming’s positive impact on students’ attitudes, behavior and academic achievement (Felner, et al., 1997; Erb, 1997; NMSA, 2007). With experience, teams learn to spend more time discussing instructional strategies and coordinating curriculum. Teachers working on teams have more positive professional self-images than other teachers, feel less isolated, and have more positive perceptions of teaching (Erb, 1997).

Interdepartmental teams are a type of natural small group described by Tuckman (2001). In a review of literature related to middle level education, it became evident that

teams are the most visible structure designed to help meet the developmental needs of students. In reviewing the differences in defining middle level teams across the field, it became evident that each school or school district can be unique within the broader middle school philosophy. As a means for continuous improvement, professional development and the movement from individual to shared beliefs illustrated through this study show great potential for improving the effectiveness of teams.

The stages of small group development created by Tuckman (2001) can serve as a practical and insightful model for small group dynamics. By focusing on the group structure (i.e., interpersonal relationships of the adults) and task activity (i.e., actions with students) realms of this framework, teachers can better understand the challenges and opportunities of teaming. Since the literature indicates that the adults benefit from teaming in a similar way to students, explicit instruction and professional development serve as an investment in the people who comprise the teams. Improving the group structure aspect of teams (i.e., group dynamics) requires an intentional focus and sustained effort/attention. Since group structure is so important to team effectiveness, should we leave it to its natural development? Clearly, the answer is no. We must work in an intentional manner to improve teacher knowledge about the complexities of teaming. From the socio-cultural and social constructivist perspective, learning is the co-construction of knowledge from the individual and group/social perspective (Hoy & Miskel, 2005; Palinesar, 1998).

Enhancing teams as a tool for meeting the needs of all students means providing focused attention on the complex aspects of this structure within the social-constructivist perspective. The collaborative norming process developed and implemented in this

study should receive strong consideration from any person working to enhance group effectiveness. The “inside-out” approach to developing a vision for teams can serve to build ownership and relevance to a profession that often deals with outside reform efforts. The value of using a collaborative norming process lies in the ability to transform teams through the people in the setting. The relative simplicity of Tuckman’s (2001) model (i.e., forming, storming, norming, performing, and adjourning) for practitioners – versus some of the more complicated work group models – should not be overlooked. The review of literature hints at the complexity of socially based improvement. The process used to create a shared framework for teaming proved to be as valuable as the product that was developed. The staff and administration at Triumph Middle School must now determine the potential use and application of their framework for exemplary teaming.

References

- Anfara, Jr., V., Brown, K., & Mangione, T. (2002). Qualitative analysis on stage: Making the research process more public. *Educational Researcher*, 31 (7), 28 – 38.
- Aretmeva, N. (2006). Communities of practice: Learning, meaning, and identity. *Technical Communication Quarterly*, 15 (4), p. 505 – 507.
- Boote, D. N. & Beile, P. (2005). Scholars before researchers: On the centrality of the dissertation literature review in research preparation. *Educational Researcher*, 34 (6), 3 – 15.
- Booth, W.C., Colomb, G. C., & Williams, J. M. (2003). *The craft of research* (2nd edition). Chicago: University of Chicago Press.
- Buyse, V., Sparkman, K. & Wesley, P. (2003). *Communities of practice: connecting what we know with what we do*. *Exceptional Children*, 69(3) p. 263-277.
- Charmaz, K. (2000). Grounded theory: Objectivist and constructivist methods. In Denzin, N. K., & Lincoln, Y. S. (eds.). *Handbook of qualitative research* (2nd ed.). Sage Publications. Thousand Oaks, CA; 509 – 535.
- Cobb, P. & Yackel, E. (1996). Constructivist, emergent, and sociocultural perspectives in the context of developmental research. *Educational Psychologist*, 31 (3/4), 175 – 190.
- Coffey, A. & Atkinson, P. (1996). *Making sense of qualitative data: complementary research strategies*. Thousand Oaks, CA: Sage Publications.
- Conley, S., Fauske, J., & Pounder, D. (2004). Teacher work group effectiveness. *Educational Administration Quarterly*, 40 (5), 663 – 703.

- Crow, G. & Pounder, D. (2000). Interdisciplinary teacher teams: Context, design, and process. *Education Administration Quarterly*. 36 (2) 216 – 254.
- Darling-Hammond, L. (1999). *Teacher quality and student achievement: A review of state policy evidence*. Center for the Study of Research and Policy: A National Research Consortium. University of Washington.
- Delamont, S. (2002). *Fieldwork in educational settings (2nd ed.)*. New York, NY: Routledge Falmer.
- Du, F. (2007). A case study of teacher leaders as group leaders: Implications for research and teacher education. *The Teacher Educator*, 42 (3), 185 – 208.
- DuFour, R. (2007). Professional learning communities: a bandwagon, an idea worth considering, or our best hope for high levels of learning? *Middle School Journal*. 4 – 8.
- DuFour, R. & Eaker, R. (1998). *Professional learning communities at work: Best practices for enhancing student achievement*. Alexandria, VA: National Education Service.
- Erb, T. (2006). Middle school models are working in many grade configurations to boost student performance. *American Secondary Education*. 34 (3), 4 – 13.
- Erb, T. (2000). Do middle school reforms really make a difference? *The Clearing House*. 73 (4), 194 – 200.
- Erb, T. (1997). Meeting the needs of young adolescents on interdisciplinary teams: the growing research base. *Childhood Education*. 73 (5), 309 – 311.
- Felner, R., Jackson, A., Mulhall, P, et al. (1997). The impact of school reform on the middle years. *Phi Delta Kappan*. 78 (7), 5 – 20.

- Glesne, C. (2006). *Becoming qualitative researchers: An introduction (3rd ed.)*. Boston: Allyn & Bacon.
- Gosin, M., Dustman, P., & Harthun, M. (2003). *Participatory action research: creating and effective prevention curriculum for adolescents in the Southwestern US*. Health Education Research. 18(3), 363-379.
- Greenwood, G., Whyte, W., & Harkavy, I. (1993). Participatory action research as a process and as a goal. *Human Relations*. 46 (2), 175 – 193.
- Gruenert, S. (2005). Correlations of collaborative school cultures with student achievement. National Association of Secondary School Principals. 89 (645), 43 – 53.
- Hackmann, D., Petzko, V., Valentine, J., Clark, D., Nori, J., & Lucas, S. (2002). Beyond Interdisciplinary Teaming: Findings and Implications of the NASSP National Middle Level Study. *NASSP Bulletin*. 86 (632), 33 – 45.
- Hare, S. E. & Hare, A. P. (2001). Role repertoires of members in an effective small group: A simulation. *The International Journal of Action Methods*, 54 (3), 91 – 105.
- Hoy, W. K. & Miskel, C. G. (2005). *Educational administration: Theory, research, and practice (7th ed.)*. New York, NY: McGraw-Hill.
- Hung, D., Seng-Chee, T., & Thiam-Seng, K. (2006). From traditional to constructivist epistemologies: A proposed theoretical framework based on activity theory for learning communities. *Journal of Interactive Learning Research*. 17 (1), 37-55.
- Hutzel, K. (2007). *Reconstructing a Community, Reclaiming a Playground: A Participatory Action Research Study*. Studies in Art Education. 48(3), p. 299-315

- Jackson, A. & Davis, G. (2000). *Turning points 2000: Educating adolescents in the 21st Century*. New York, NY: Teachers College Press.
- John-Steiner, V. & Mahn, H. (1996). Sociocultural approaches to learning and development: A Vygotskian framework. *Educational Psychologist*, 31 (3/4), 191 - 206.
- Kemmis, S. & McTaggart, R. (2000). Participatory action research. In Denzin, N. K., & Lincoln, Y. S. (eds.). *Handbook of qualitative research (2nd ed.)*. Sage Publications. Thousand Oaks, CA; p. 567 – 605.
- Lather, P. (2001). *Validity as an incitement to discourse: Qualitative research and the crisis of legitimation*. In Richardson, V. (ed.). *Handbook of Research on Teaching (4th ed.)*. Washington, D.C.: American Educational Research Association.
- Leana, C. & Frits, F. (2006). Social capital and organizational performance: Evidence from urban public schools. *Organization Science*. 17 (3), 353 – 366.
- Lencioni, P. (2005). *The five dysfunctions of a team*. San Francisco, CA: Jossey-Bass.
- Lencioni, P. (2005). *Overcoming the five dysfunction of a team: A field guide for leaders, managers, and facilitators*. San Francisco, CA: Jossey-Bass.
- Levine, J. M. & Moreland, R. L. (1990). Progress in small group research. *Annual Review of Psychology*, 41, p. 585 – 634.
- Mahn, H. (1999). Vygotsky's methodological contribution to sociocultural theory. *Remedial and Special Education*. 20 (6), 341 – 350.
- Maxwell, J. A. (2006). Literature reviews of, and for, educational research: A commentary on Boote and Beile's "Scholars Before Researchers". *Educational Researcher*, 35(9), 28–31.

National Association of Secondary School Principals. (2006). *Breaking ranks in the middle: Strategies for leading middle level reform*. Reston, VA.

National Middle School Association. (1995). *This we believe: Developmentally responsive middle level schools*. Columbus, OH: NMSA.

National Middle School Association. (2001). *This we believe...and now we must act*. Westerville, OH: NMSA.

Nelson, H., Fairchild, M., Grossenbacher, M., & Landers, L. (2007). Examining effective middle grades programs: Stating implications for secondary school reform. *American Secondary Education*, 35 (2), 52 – 68.

No Child Left Behind Act of 2001.

Ohio State University Extension (2000). Building dynamic groups: Nominal grouping technique. http://www.ag.ohio-state.edu/~bdg/pdf_docs/d/F06.pdf

Owen, M. (2004). Conflict and convergence: The ethics review of action research. *Journal of Research Administration*. (35) 2, p. 21 – 30.

Oxley, D. (2001). Organizing schools into small learning communities. *NASSP Bulletin*. 85 (625), 5 – 15.

Palinesar, A. S. (1998). Social constructivist perspectives on teaching and learning. *Annual Review of Psychology*, 49, 345 – 375.

Park, S., Henkin, A. B., & Egley, R. (2005). Teacher team commitment, teamwork, and trust: Exploring associations. *Journal of Educational Administration*, 43 (4/5), p. 462 – 479.

Pennsylvania Department of Education (www.pde.k12.pa.us).

- Pereles, L., Lockyer, J. & Fidler, H. (2002). Permanent small groups: Group dynamics, learning, and change. *The Journal of Continuing Education in the Health Profession*, 22, 205 – 213.
- Pounder, D. (1999). Teacher teams: Exploring job characteristics and work-related outcomes of work group enhancement. *Educational Administration Quarterly*. 35 (3), 317 – 348.
- Price, M., O'Donovan, B., & Rust, C. (2007). Putting a social-constructivist assessment process model into practice: Building the feedback loop into the assessment process through peer review. *Innovations in Education and Teaching International*, 44 (2), p. 143 – 155.
- Senge, P. (1990). *The fifth discipline: The art and practice of the learning organization*. Currency Doubleday.
- Shank, G. (2006). *Qualitative research: a personal skills approach (2nd ed.)*. Columbus, OH: Pearson Merrill Prentice Hall.
- Shaw, J. B. & Barrett-Power, E. (1998). The effects of diversity on small work group processes and performance. *Human Relations*, 51 (10), 1307 – 1325.
- Street, C. (2004). Examining learning to teach through a social lens: How mentors guide newcomers into a professional community of learners. *Teacher Education Quarterly*, 31 (2), p. 7 – 24.
- Stringer, E. (1999). *Action research: A handbook for practitioners (2nd ed.)*. Thousand Oaks, CA: Sage Publications.
- Tschannen-Moran, M. (2001). Collaboration and the need for trust. *Journal of Educational Administration*. 39 (4), 308 – 331.

- Tuckman, B. (2001). Developmental sequence in small groups. *Group Facilitation*. (3) 66 – 81.
- Tuckman, B. & Jensen, M. (1977). Stages of small-group development revisited. *Group & Organizational Studies*. 2 (4), 419 – 427.
- Walford, G. (2001). *Doing qualitative educational research: A personal guide to the research process*. New York, NY: Continuum.
- Weller, L. D. (1995). Quality teams: Problems, causes, solutions. *The TQM Magazine*. 7(3) 45 – 49.
- Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge, England: Cambridge University Press.
- Wheelan, S. A. & Kesselring, J. (2005). Link between faculty group development and elementary student performance on standardized tests. *The Journal of Educational Research*, 98 (6), 323 – 331.

Appendix A

Letter to Superintendent and Principal Regarding the Study

9524 Anderson Road
Pittsburgh, PA 15237
(412) 334-0973

January 4, 2008 (after IRB approval)

Dear Superintendent and Middle School Principal,

I am currently the Principal at Carson Middle School in the North Allegheny School District and a doctoral candidate in the Interdisciplinary Doctoral Program for Educational Leaders (IDPEL) at Duquesne University. I am interested in scheduling a brief 30 minute overview meeting with you to discuss my research. As an experienced educator in a school district with high expectations for success, I firmly believe that my research topic will provide potential benefits to your middle level program. I have already utilized a similar process in my own building.

The purpose of my study is to determine the influence of a collaborative norming process on teacher perceptions of middle level team structure and development. In taking people from an individual to a shared group perspective, a heightened awareness of group structure, dynamics, and common dysfunctions may serve to enhance understanding and effectiveness. As you know, the teaming concept has served as a cornerstone of middle level philosophy and education since the middle school movement began in the 1960s. Described as a signature practice in the middle school movement, teaming provides an organizational framework that allows schools to design and deliver effective learning to every student.

Despite the widespread use of teaming, most of the empirical research is focused on the structural components of teams. Little empirical attention is given to middle school teams as small groups and the steps necessary to enhance the interpersonal dynamics and relationships of teachers on those teams in the establishment of shared beliefs. After gaining access to the site and the informed consent of participants, I will follow these general steps: (a) baseline interviews with a small number of teachers; (b) artifact collection; (c) professional development sessions; (d) collaborative norming process intervention; and (e) follow-up interviews. The dialogue and reflection inherent in this type of collaborative norming process should prove to be as valuable as the product – a site specific framework for exemplary teams.

Participation in this study is strictly voluntary. While your support is critical to this project, teachers must be able to safely, honestly participate or choose not to participate without consequence. Given that all participants are 18 years of age or older, informed consent will be obtained for each participant. Students are not a part of this research design. As a component of the IRB procedural safeguards, the confidentiality of participants will be addressed. Participants will have the right to withdraw from the study at any time. If you have additional questions, please contact me at (412) 334-0973 or at bmiller@northallegheny.org. You may also contact my dissertation chair and the IDPEL Program Director, Dr. James E. Henderson, at (412) 396-4880 or via email at henderson@duq.edu.

Thank you for your time and consideration. I look forward to the possibility of a brief meeting.

Respectfully,

Brian R. Miller
School of Education
Duquesne University

Appendix B

Invitation Letter to Teacher Participants Regarding the Teaming Study

9524 Anderson Road
Pittsburgh, PA 15237
(412) 334-0973

January 28, 2008

Dear Teacher,

I am currently the Principal at Carson Middle School in the North Allegheny School District and a doctoral candidate in the Interdisciplinary Doctoral Program for Educational Leaders (IDPEL) at Duquesne University. In the past few weeks, I provided an overview of my planned research to central administration, your building administration, and your building representative. As an experienced educator in a school district with high expectations for success, I firmly believe that my research topic will provide potential benefits for team teachers and have already utilized a similar process in my own building. If you agree to attend, I am scheduled to meet with you in the library at 2:50 p.m. on Tuesday, February 5, 2008. At this time, I will provide an overview of the study and answer questions. Light refreshments will be available.

The purpose of my study is to determine the influence of a collaborative norming process on teacher perceptions of middle level team structure and development. In taking people from an individual to a shared group perspective, a heightened awareness of group structure, dynamics, and common dysfunctions may serve to enhance understanding and effectiveness. As you know, the teaming concept has served as a cornerstone of middle level philosophy and education since the middle school movement began in the 1960s. Described as a signature practice in the middle school movement, teaming provides an organizational framework that allows schools to design and deliver effective learning to every student.

Despite the widespread use of teaming, most of the empirical research is focused on the structural components of teams. Little empirical attention is given to middle school teams as small groups and the steps necessary to enhance the interpersonal dynamics and relationships of teachers on those teams in the establishment of shared beliefs. If I am successful in gaining your informed consent, I will follow these general steps: (a) baseline interviews with a small number of teachers; (b) artifact collection; (c) professional development sessions; (d) collaborative norming process intervention; and (e) follow-up interviews. The dialogue and reflection inherent in this type of collaborative norming process should prove to be as valuable as the product – a site specific framework for exemplary teams.

Participation in this study is strictly voluntary. Given that all participants are 18 years of age or older, informed consent will be obtained for each participant. Students are not a part of this research design. As a component of the IRB procedural safeguards, the confidentiality of participants will be addressed and clearly explained in the consent form. Participants will have the right to withdraw from the study at any time. If you have additional questions following the overview meeting, please contact me at (412) 334-0973 or at bmiller@northallegheny.org. You may also contact my dissertation chair and IDPEL Program Director, Dr. James E. Henderson, at (412) 396-4880 or via email at henderson@duq.edu.

Thank you for your time and consideration. I look forward to the possibility of a brief meeting with you.

Respectfully,
Brian R. Miller
School of Education
Duquesne University

Appendix C

Informed Consent Form for Teachers



DUQUESNE UNIVERSITY

600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

CONSENT TO PARTICIPATE IN A RESEARCH STUDY (TEACHER FORM)

- TITLE:** Influence of a collaborative norming process on teacher perceptions of middle level team structure and development
- INVESTIGATOR:** Brian R. Miller
9524 Anderson Road
Pittsburgh, PA 15237
(412) 366-0130
- ADVISOR:** Dr. James E. Henderson
IDPEL Program Director
Department of Foundations and Leadership
(412) 396-4880
- SOURCE OF SUPPORT:** This study is being performed in partial fulfillment of the requirements for the degree of Doctor of Education in the Interdisciplinary Doctoral Program for Educational Leaders at Duquesne University.
- PURPOSE:** As teachers, you are being asked to participate in a research project that seeks to investigate the influence of a collaborative norming process on teacher perceptions of middle level team structure and development. This study should illuminate practical issues in enhancing team performance and include professional development sessions and a small group process to develop shared beliefs or norms for team performance.
- Two levels or tiers of involvement will occur. With voluntary consent, teachers will participate in the professional development and collaborative norming process. However, a sample of the core team teachers will also be invited to participate in semi-structured interviews. The interviews will be audiotaped and transcribed.
- These are the only requests that will be made of you.
- RISKS AND BENEFITS:** There are no risks greater than those encountered in everyday life. Possible benefits of the study include professional development related to interdisciplinary teaming, increased awareness of the stages of small group development, and the creation of a site-specific framework for team performance. Building administrators will not be involved in the team sessions. The level and type of participation will not be shared with school district administrators.

- COMPENSATION:** The project will require no monetary cost to you. Compensation may include staff development and/or Act 48 credit hours for appropriate portions of the study. If confidentiality of participants cannot be maintained, credit will not be provided.
- CONFIDENTIALITY:** Your involvement in this study will remain confidential. For teachers participating in the individual interviews, the audio-recordings will be transcribed. Pseudonyms will be used for the teacher and any references to students or other school personnel. After identifiers are removed, portions of the transcript may be used for direct quotation or discussion in the final dissertation report. Pseudonyms will also be used when describing teacher participation in the professional development sessions and collaborative norming process. All written materials, consent forms, and audiotapes will be stored in a locked file in the researcher's home and retained for five years after study completion. At that time, all materials will be destroyed. Your response(s) will only appear in statistical data summaries.
- RIGHT TO WITHDRAW:** You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time without risk or consequence.
- SUMMARY OF RESULTS:** A summary of the results of this research will be supplied to you, at no cost, upon request. You will also receive a transcription of your interview session as a part of the data analysis process for review.
- VOLUNTARY CONSENT:** I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project. I understand that should I have any further questions about my participation in this study, I may call Brian R. Miller (see above for contact information), Dr. James Henderson (see above for contact information) and/or Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board 412-396-6326).

Two tiers or levels of participation are possible in this study. Please consider both options. *By signing both lines, you are agreeing to participate in the professional development, group norming process, and individual interviews.*

Participant's Signature (General Participation in Professional Development Sessions and Group Norming Processes)

Date

Participant's Signature (**Additional Agreement for an Individual Interview**)

Date

Researcher's Signature

Date

Appendix D

Informed Consent Form for Principals



DUQUESNE UNIVERSITY

600 FORBES AVENUE ♦ PITTSBURGH, PA 15282

CONSENT TO PARTICIPATE IN A RESEARCH STUDY (PRINCIPAL FORM)

TITLE: Influence of a collaborative norming process on teacher perceptions of middle level team structure and development

INVESTIGATOR: Brian R. Miller
9524 Anderson Road
Pittsburgh, PA 15237
(412) 366-0130

ADVISOR: Dr. James E. Henderson
IDPEL Program Director
Department of Foundations and Leadership
(412) 396-4880

SOURCE OF SUPPORT: This study is being performed in partial fulfillment of the requirements for the degree of Doctor of Education in the Interdisciplinary Doctoral Program for Educational Leaders at Duquesne University.

PURPOSE: As a principal, you are being asked to participate in a research project that seeks to investigate the influence of a collaborative norming process on teacher perceptions of middle level team structure and development. This study should illuminate practical issues in enhancing team performance and include professional development sessions and a small group process to develop shared beliefs or norms for team performance.

Two levels or tiers of involvement will occur for teachers. With their voluntary consent, teachers will participate in the professional development and collaborative norming process. As principal, you are invited to participate in an individual interview and will also be involved in reviewing the materials and group progress. The interviews will be audiotaped and transcribed. You will not be directly participating with the teachers. You will not receive information about teachers' participation or non-participation.

These are the only requests that will be made of you.

RISKS AND BENEFITS: There are no risks greater than those encountered in everyday life. Possible benefits of the study include professional development related to interdisciplinary teaming, increased awareness of the stages of small group development, and the creation of a site-specific framework for team performance.

Building administrators will not be involved in the team sessions. The level and type of participation will not be shared with school district administrators.

COMPENSATION: The project will require no monetary cost to you. Compensation may include staff development and/or Act 48 credit hours for appropriate portions of the study. If confidentiality of participants cannot be maintained, credit will not be provided.

CONFIDENTIALITY: Your involvement in this study will remain confidential. For teachers participating in the individual interviews, the audio-recordings will be transcribed. Pseudonyms will be used for the teacher and any references to students or other school personnel. After identifiers are removed, portions of the transcript may be used for direct quotation or discussion in the final dissertation report. Pseudonyms will also be used when describing teacher participation in the professional development sessions and collaborative norming process. All written materials, consent forms, and audiotapes will be stored in a locked file in the researcher's home and retained for five years after study completion. At that time, all materials will be destroyed. Your response(s) will only appear in statistical data summaries.

RIGHT TO WITHDRAW: You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time without risk or consequence.

SUMMARY OF RESULTS: A summary of the results of this research will be supplied to you, at no cost, upon request. You will also receive a transcription of your interview session as a part of the data analysis process for review.

VOLUNTARY CONSENT: I have read the above statements and understand what is being requested of me. I also understand that my participation is voluntary and that I am free to withdraw my consent at any time, for any reason. On these terms, I certify that I am willing to participate in this research project.

I understand that should I have any further questions about my participation in this study, I may call Brian R. Miller (see above for contact information), Dr. James Henderson (see above for contact information) and/or Dr. Paul Richer, Chair of the Duquesne University Institutional Review Board 412-396-6326).

Participant's Signature (**Agreement for an Individual Interview**
and Ongoing Discussion about Progress in the Professional
Development Sessions and Group Norming Processes)

Date

Researcher's Signature

Date

Appendix E

Preliminary Semi-Structured Interview Questions for Teachers

Teacher Interview Questions

Participant: _____ Pseudonym: _____ Date: _____

Interview Location: _____ Start: _____ End: _____

Opening Comments:

Thank you for participating in this interview. As a fellow middle level educator, I understand the demands on your time. This interview will last approximately 45 minutes and the questions will relate to your perceptions and experiences with various aspects of interdisciplinary teaming. Please feel comfortable to stop me at any time or clarify an idea. It is my goal to create a positive, relaxed setting for our time together.

A. Demographic/Background

Can you provide some of your background experiences (e.g. certification, experiences, years in education, years at middle level, years on a team, etc.)?

B. Team

How do you define teaming? What are the major functions and/or purposes of middle school teams?

Please paint a picture of some of the things that you do and/or talk about as a team (e.g. meetings, curriculum planning, student discussion, etc.)? Do you have informal or formal roles (e.g. leader, secretary, etc.)?

Does a common vision exist for teams? Are there common points of emphasis or expectations for team action/behavior? How are those determined?

With regard to teaming, please talk about the consistency of beliefs on your team, within teams at the same grade level, and across teams in the building. Do you think that all four teams are working toward the same goals?

In your time at this middle school, have you focused on the teaming concept through professional development (formal or informal)? How does your team get better at teaming? Where would you start?

When your team changes personnel due to retirement, enrollment, etc., how are new team members brought into the group? Are there formal or informal steps that are followed?

C. Stages of Small Groups

Work groups or teams exist in a variety of settings both in and outside of the education field. Are you familiar with the stages of small group development? Can you share your general thoughts about group dynamics? What are some of the common dysfunctions or challenges with a team?

How do you make decisions as a small group? Have you ever disagreed on a topic? Please describe that experience. What happened to resolve the matter? How do you generate agreement and shared understanding? Do you work in an intentional manner to improve team member interactions and group dynamics?

D. Miscellaneous

What would you like to say about your team in a year that you can't say now?

Thank you for your time today. In the next couple weeks, we will be involved in some professional development and group norming process. I really appreciate you help!

Appendix F

Preliminary Semi-Structure Interview Questions for Principals

Principal Interview Questions

Participant: _____ Pseudonym: _____ Date: _____

Interview Location: _____ Start: _____ End: _____

Opening Comments:

Thank you for participating in this interview. As a fellow middle level educator, I understand the demands on your time. This interview will last approximately 45 minutes. Please feel comfortable to stop me at any time or clarify an idea. It is my goal to create a positive, relaxed setting for our time together.

A. Demographic/Background

Can you provide some of your background experiences (e.g. certification, experiences, years in education, years at middle level, years on a team, etc.)?

B. Team

How do you define teaming? What are the major functions and/or purposes of middle school teams? If I asked all of the team teachers the same questions, what do you think would be the response?

Please paint a picture of some of the things that you do and/or talk about to support the teaming concept from a school perspective (e.g. master schedule, meetings, curriculum planning, student discussion, etc.)? Do you assign informal or formal roles (e.g. leader, secretary, etc.)?

Does a common vision exist for teams? Are there common points of emphasis or expectations for team action/behavior? How are those determined?

With regard to teaming, please talk about the consistency of beliefs on your team, within teams at the same grade level, and across teams in the building. Do you think that all four teams are working toward the same goals?

How do you get involved in decisions on the team? How does your role fit within the structure and work of the team? Have you ever had to intervene in a matter within the team?

When your staff changes personnel due to retirement, enrollment, etc., how are new team members brought into the group? Are there formal or informal steps that are followed? How do you address “fit” between the veterans and new teacher?

In your time as principal at this school, have you focused on the teaming concept through professional development (formal or informal)? How would your teams get better at teaming? Where would you start?

C. Stages of Small Groups

Work groups or teams exist in a variety of settings both in and outside of the education field. Are you familiar with the stages of small group development? Can you share your general thoughts about group dynamics? What are some of the common dysfunctions or challenges with a team?

How do you make decisions as a small group? Have you ever disagreed on a topic? Please describe that experience. What happened to resolve the matter? How do you generate agreement and shared understanding? Do you work in an intentional manner to improve team member interactions and group dynamics?

D. Miscellaneous

From a building perspective, what would you like to say about your teams in a year that you can't say now?

Thank you for your time today. In the next couple weeks, we will be involved in some professional development and group norming process. I really appreciate you help!

Appendix G

Professional Development Session Agenda

Teaming Study: Professional Development Session #1

1. Research Process and Timeline

2. History – (Most of us did not receive formal training in middle level philosophy)

- *This We Believe & This We Believe...And Now We Must Act*
 - **14 Characteristics of Successful Middle Schools:**
 - § 8 facets of middle school culture;
 - § 6 programmatic characteristics (i.e., organizational structures that support meaningful relationships and learning);
 - **5 Developmental Characteristics:**
 - § Intellectual, Moral, Physical, Emotional/Psychological, and Social;
- *Turning Points & Turning Points 2000*
 - **Carnegie Council on Adolescent Development**
 - **Essential Principles for Improving Middle Grades Schools:**
 - § Chapter 6 - “Organizing Relationships for Learning” with larger middle grades schools are divided into smaller communities for learning (p. 2);
 - § Team Approach, Size, Roles/Responsibilities, Actions, etc.
- *Breaking Ranks in the Middle: Strategies for Leading Middle Level Reform*
 - **Three Core Strands (p. 23)**
 - § Collaborative Leadership and Professional Learning Communities
 - § Personalization and the School Environment
 - § Curriculum, Instruction, and Assessment
 - **Nine Cornerstone Strategies (p. 8)**
 - § Strategy #2 – “Create dynamic teacher teams that are afforded common planning time to help organize and improve the quality of interactions between teachers and students (p. 10);
- *Findings from Empirical Research on Teams and Small Groups*

3. Session Purpose

- Apply background information on middle school teams and small groups to a professional development activity;
- Discuss the ideas of transforming teaming through an inside-out/social constructivist approach;
- Improve the purpose, function, and consistency of teaming at the school based upon a collaborative norming process;

Team – a small group of teachers (2 – 5) with different core content responsibilities who work with the same group of students (50 – 125) in a school-within-a-school structure.

Developmental Sequence in Small Groups (Tuckman, 2001)

Stages	Group Structure The pattern of interpersonal relationships and interactions of members toward each other.	Task Activity The content of interaction as related to the task at hand.
Forming: Orientation, testing, and dependence	Testing and dependence	Orientation to the task
Storming: Resistance to group influence and task requirements	Intra-group conflict	Emotional response to task demands
Norming: Openness to other group members	In-group feeling and cohesiveness develop; new standards evolve and new roles are adopted	Open exchange of relevant interpretations; intimate, personal opinions are expressed
Performing: Constructive action	Roles become flexible and functional; structural issues have been resolved; structure can support task performance	Interpersonal structure becomes the tool of task activities; group energy is channeled into the task; solutions can emerge
Adjourning: Disengagement	Anxiety about separation and termination; sadness; feelings toward leader and group members	Self-evaluation

The Five Dysfunctions of a Team (Lencioni, 2005)

Level	Team Dysfunction	Team Consequence
Level 5	Inattention to Results	Status and Ego
Level 4	Avoidance of Accountability	Low Standards
Level 3	Lack of Commitment	Ambiguity
Level 2	Fear of Conflict	Artificial Harmony
Level 1	Absence of Trust	Invulnerability

4. Trust Activity

- Change and development best occur through active participation and investment in people.
- Teamwork was a significant predictor of teacher team commitment. The results also suggest the importance of trust as a fundamental element in the effective teams (Tschannen-Moran, 2001).

Trust Building Actions/Behaviors	Trust Destroying Actions/Behaviors
• • • • •	• • • • •

Factors Found to Strengthen Identification-Based Trust:

- Development of a collective identity
- Co-location (physical proximity)
- Creation of joint goals or products
- Commitment to commonly shared value

5. Individual Belief Statements

Process: Over the next two sessions, we will engage in a homogeneous team (first session) and then heterogeneous team (second session) process to move from individual belief generation to a shared vision for teaming at this middle school.

Step 1: Individual team members receive ten index cards and will be asked to independently **write 7 – 10 rich, vivid descriptors of an exemplary middle level team related to task activity and group structure elements**. Example statements will be provided to the team members to increase the quality of writing. *Finished cards will be “pinned” to a board in a conference room-style area.*

Example: Discuss student performance across different academic classes and develop consistent intervention strategies to be reinforced in each class.

Example: Celebrate student success and effort within school and with parents on a regular basis.

Please complete your individual cards by Friday, March 14, 2008 at 3:00 p.m.
You may utilize any means (e.g., articles, books, personal experiences, and websites) to complete the task. Please do not consult your colleagues or work as a group on this step of the process

Appendix H

Professional Development Session Reflection Form

Professional Development #1: Reflections

As we meet today, please consider the impact of our discussions on your thoughts about teaming and small group development. I will ask you to keep these note pages during the study as a memory tool.

Middle Level Research (This We Believe, Turning Points, Breaking Ranks, and Research)

Stages of Small Group Development

Common Dysfunctions and Challenges on a Team

Trust Activity

Appendix I

Homogenous Small Group Session Agenda Reflection Form

Professional Development #2 and Group Norming #1

Directions: During today's meeting, I will ask you to take a few moments to reflect on each step of the process. As part of my research design, I will collect your sheets at the end of the session. You do not need to place your name on your sheet.

Last Meeting – What impact (if any) did our last meeting have on your thinking and/or action?

Step 1: Individual Cards – Please share your reactions to this activity.

Step 2: Nominal Grouping Technique – Please share your reactions to this activity.

Step 3: Re-Grouping with Tentative Header – Please share your reactions to this activity.

Step 4: Item Reduction/Consolidation – Please share your reactions to this activity.

Step 5: Heterogeneous Group Selection

Part 1 (Rough Cut Work): Merge four team boards into one final board;
Rename or revise category headers if needed; Eliminate cards if necessary;

Part 2 (Detailed Writing): Re-write each concept into a vivid “ends” statement
(not a prescriptive “means” statement); Complete draft framework

Appendix J

Heterogeneous Small Group Session Reflection Form

Heterogeneous Group 1 Session Reflection Sheet

Directions: During today's meeting, I will ask you to take a few moments to reflect on each step of the process. As part of my research design, I will collect your sheets at the end of the session. You do not need to place your name on the sheet.

Four Boards – Please take five minutes to quietly review the boards and reflect on perceived strengths and weaknesses.

Step 5: Final Headings – Please share your reactions to this activity.

Step 6: Statement Prioritization – Please share your reactions to this activity.

Heterogeneous Group 2 Session Reflection Sheet

Directions: During today's meeting, I will ask you to take a few moments to reflect on each step of the process. As part of my research design, I will collect your sheets at the end of the session. You do not need to place your name on the sheet.

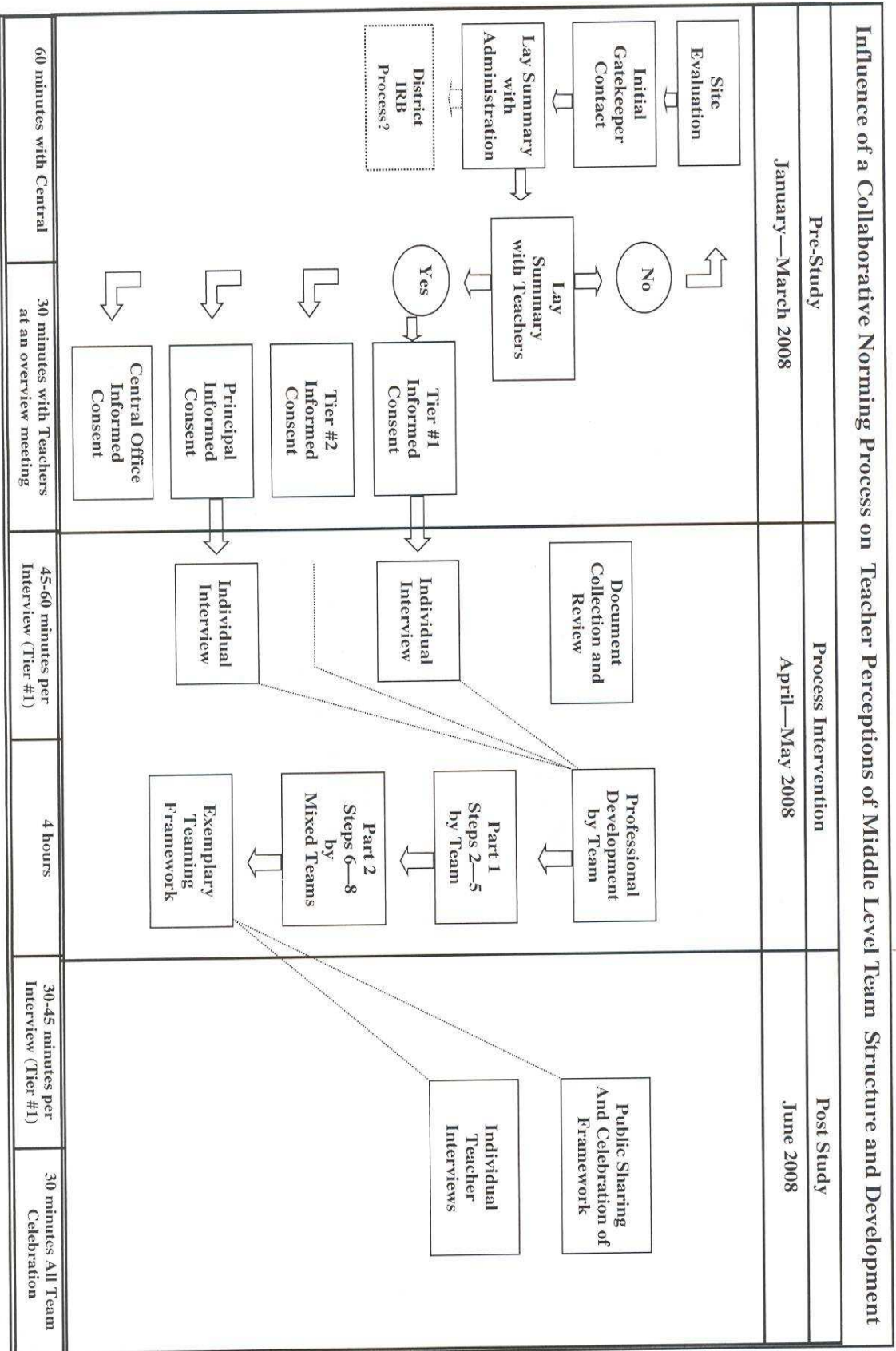
Single Board – Please take five minutes to quietly review the condensed board and reflect on perceived strengths.

Step 7: Category Writing – Please share your reactions to this activity.

Step 8: Draft Framework – Please share your reactions to this activity.

Appendix K

Team Study Methodology Flowchart



Appendix L

Small Grouping Norming Process Flowchart

Visual Summary of the Team Norming Process

Figure 1: Outcome of the Brainstorming Process: Independent Descriptors

Figure 2: Category Clusters

Figure 3: Revised Category Groupings with Tentative Header Titles

Header 1	Header 2	Header 3	Header 4

Figure 4: Final Generic Rubric Format

	Header 1	Header 2	Header 3	Header 4
Exemplary	•	•	•	•
	•	•	•	•
	•	•	•	•
Average	•	•	•	•
	•	•	•	•
	•	•	•	•
Low	•	•	•	•
	•	•	•	•
	•	•	•	•

Appendix M

Heterogeneous Group 1 Session Reflection Sheet

Heterogeneous Group 1 Session Reflection Sheet

Directions: During today's meeting, I will ask you to take a few moments to reflect on each step of the process. As part of my research design, I will collect your sheets at the end of the session. You do not need to place your name on the sheet.

Four Boards – Please take five minutes to quietly review the boards and reflect on perceived strengths and weaknesses.

Step 5: Final Headings – Please share your reactions to this activity.

Step 6: Statement Prioritization – Please share your reactions to this activity.

Appendix N

Heterogeneous Group 2 Session Reflection Sheet

Heterogeneous Group 2 Session Reflection Sheet

Directions: During today's meeting, I will ask you to take a few moments to reflect on each step of the process. As part of my research design, I will collect your sheets at the end of the session. You do not need to place your name on the sheet.

Single Board – Please take five minutes to quietly review the condensed board and reflect on perceived strengths.

Step 7: Category Writing – Please share your reactions to this activity.

Step 8: Draft Framework – Please share your reactions to this activity.

Appendix O:

Final Interview Questions

Teacher Follow-up Interview Questions

Participant: _____ Pseudonym: _____ Date: _____

Interview Location: _____ Start: _____ End: _____

Opening Comments:

Thank you again for participating in the study. This interview will last approximately 30 minutes and is designed to help determine the overall influence of the collaborative norming process and professional development on aspects of teaming.

Demographic/Background

Our study involved a few major steps: (1) initial interviews and document analysis; (2) professional development; (3) individual belief generation; (4) team grouping; and (5) school-wide norming activity to develop a common framework for teaming.

What do you think was the overall influence of the study processes on your perceptions of team structure and development?

In considering the draft exemplary teaming framework, how does that product influence your initial perceptions of your team's performance and behavior?

In reflecting on your prior perceptions of the similarities and differences between teams, how did your work with all of the individual statements impact those perceptions?

Did you notice any tensions emerge in any steps (homogeneous group vs. heterogeneous group) of the group processes? If yes, what were they?

How do you decide whether to engage in debate about key ideas?

Do you think that this experience will help all four teams work toward the same goals?

How do you think the framework will or should be used? Will this process help you more clearly identify and articulate the major functions and/or purposes of middle school teams?

In the study, I introduced Tuckman's framework for the stages of small group development. Do you feel this framework is appropriate for middle level teams? How did explicit instruction and awareness of the forming, storming, and norming stages of small group development influence your reflections on group performance and behavior?

Did the creation of the framework cause any reactions or pressure (stressors) in the building? Does the possibility of change affect attitudes? What unintended consequences (e.g. teacher-to-teacher, teacher-to-student, and/or principal-to-teacher) or other themes emerged for teachers as a result of this activity/process?

Do you have any other reflections or final thoughts that you would like to share?

Thank you for your time today and your cooperation/flexibility throughout this study.

Appendix P:

Triumph Area Middle School Exemplary Teaming Framework

EXEMPLARY TEAMING FRAMEWORK

Triumph Middle School

INSTRUCTIONAL STRATEGIES	STUDENT CENTERED	PROFESSIONAL DYNAMICS	COMMUNICATION
<ul style="list-style-type: none"> Address individual learning styles, academic strengths and weaknesses through differentiation of content, process, product, and learning environment while remaining cognizant of best practices; Establish common organizational strategies for students and communicate them consistently throughout the subject areas; Incorporate interdisciplinary activities to support curriculum and transference of knowledge and skills across subject areas; Coordinate among team teachers the scheduling of student assignments and assessments; Establish common classroom management practices to create a safe and productive learning environment; 	<ul style="list-style-type: none"> Hold team meetings on a consistent basis to monitor student academic progress as well as student's social and emotional well-being; Establish consistent team expectations for students that foster responsibility, independence, and academic growth; Foster a team environment that allows continuous development of positive rapport and mutual respect with students; Establish rigorous learning expectations for all students including remediation for struggling learners and enrichment for advanced learners; Develop a unified team identity that creates a sense of pride, spirit, and belonging in team teachers and students; 	<ul style="list-style-type: none"> Develop team expectations/rules to be enforced, published and communicated to students and parents; Identify individual roles and responsibilities within the team and create an atmosphere of mutual trust and respect; Share best practices for growth and utilization of team members professional strengths; Create a team environment that allows for flexibility while supporting the curricula of other team members; Foster a cooperative relationship among administration, co-teachers and support personnel; 	<ul style="list-style-type: none"> Promote healthy relationships through regular communication with students, parents, administrators, and team teachers about student accomplishments, team activities, and student concerns; Share pertinent information in a timely manner to facilitate more efficient communication; Use current technology to communicate with all involved individuals; Participate in activities that support the school and community;